

061026

JPRS-TEP-86-028

8 DECEMBER 1986

Worldwide Report

EPIDEMIOLOGY

DTIC QUALITY INSPECTED 4

Reproduced From
Best Available Copy

19981130 099

FBIS FOREIGN BROADCAST INFORMATION SERVICE

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL
INFORMATION SERVICE
SPRINGFIELD, VA. 22161

7
83
A05

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-TEP-86-028

8 DECEMBER 1986

WORLDWIDE REPORT
EPIDEMIOLOGY

CONTENTS

HUMAN DISEASES

BANGLADESH

Briefs	
Diarrhea in Flood Area	1
Cholera Outbreak	1
Eye Disease Epidemic	1
Tuberculosis Statistics	1

BRAZIL

Briefs	
Bubonic Plague Increase	3
3,000 AIDS Cases Detected	3
Dengue Cases in Ceara	3

CANADA

Statistics on Major Causes of Death Reported (Joe O'Donnell; Toronto THE TORONTO STAR, 28 Oct 86).....	4
AIDS Incidence, Grant, Dental Issue Discussed (Windsor THE WINDSOR STAR, 5 Nov 86; Vancouver THE SUN, 8, 22 Oct 86).....	5
763 Cases	5
Grant to Vancouver, by Anne Mullens	6
British Columbia Dentists, by Anne Mullens	7

Report Links Dump to Health Problems in Hamilton
(Windsor THE WINDSOR STAR, 5 Nov 86) 9

Briefs

1985 TB Incidence 10

DENMARK

Explosive Increase in AIDS Cases Feared
(Copenhagen BERLINGSKE TIDENDE, 3 Nov 86) 11

Number of Cases, by Poul Erik Petersen 11
Money for Prevention, by Poul Erik Petersen 12
Editorial Comments 13

GAMBIA

Briefs

AIDS Diagnosed 15

GUYANA

Malaria Situation Getting Heightened Attention
(Georgetown GUYANA CHRONICLE, 8, 9 Oct 86; Georgetown
CATHOLIC STANDARD, 12 Oct 86) 16

Assistance From USSR 16
Drugs Donation 16
Areas of Concern 17

Crackdown on Poor Conditions at Drug-Selling Places
(Georgetown GUYANA CHRONICLE, 21 Oct 86) 18

Registry Provides Doctor Ratio, Other Statistics
(Georgetown MIRROR, 19 Oct 86) 19

HONG KONG

Government Scored for Poor Handling of AIDS Warning
(Hong Kong SOUTH CHINA MORNING POST, 13 Oct 86) 21

Paper Discovers Cover-Up of September AIDS Death
(John Beasant; Hong Kong SOUTH CHINA MORNING POST,
16 Oct 86) 22

AIDS Cases Rise, Warnings Released
(Sa Ni Harte; Hong Kong SOUTH CHINA MORNING POST,
3 Nov 86) 23

INDIA

Seminar Discusses Incidence, Causes of Cancer (New Delhi PATRIOT, 12 Oct 86).....	25
Minister Gives Details of Encephalitis Epidemic (Calcutta THE TELEGRAPH, 21 Oct 86).....	26
Minister Refutes Gastroenteritis Epidemic Rumors (Calcutta THE STATESMAN, 21 Oct 86).....	27
Coronary Diseases Said To Be Major Killer in India (Bombay THE TIMES OF INDIA, 20 Oct 86).....	28
Briefs	
Encephalitis in Andhra Pradesh	29
Mystery Disease Deaths	29

INDONESIA

Briefs	
Tuberculosis Death Toll	30

KENYA

Health Officer Cautions on New AIDS Drugs (Nairobi THE WEEKLY REVIEW, 10 Oct 86).....	31
Briefs	
AIDS Death Reported	32

NICARAGUA

13,000 Malaria Cases, January-September (Managua BARRICADA, 10 Oct 86).....	33
Travelers From Cuba Checked for Conjunctivitis (Managua EL NUEVO DIARIO, 22 Oct 86).....	34

NIGERIA

'Unidentified Epidemic' Reported (Lagos Domestic Service, 11 Nov 86).....	36
Deaths in Benue State	36
Medical Equipment, Drugs Sent	36
Briefs	
Trachoma Outbreak Reported	37
Scabies Outbreak Reported in Borno	37

PEOPLE'S REPUBLIC OF CHINA

Factors Affecting Human Interferon- β Superinduction
(Xiong Shaoyin, et al.; Beijing WEISHENGWUXUE TONGBAO
[MICROBIOLOGY], No 3, Jun 86)..... 38

Reversed Carbon Agglutination Test Used in Evaluating Leptospiral
Vaccine Mass
(Bao Xinghao, et al.; Beijing WEISHENGWUXUE TONGBAO
[MICROBIOLOGY], No 3, Jun 86)..... 40

Peptide Mapping Analysis of ^{125}I -Labeled Membrane Proteins of
Some Influenza Viruses Isolated in China
(Lin Qiao, et al.; Beijing WEISHENGWUXUE TONGBAO
[MICROBIOLOGY], No 3, Jun 86)..... 42

Briefs

AIDS Prevention Team 44

SOUTH AFRICA

AIDS Likely To Double in 12 Months
(Capt Town THE ARGUS, 28 Oct 86)..... 45

Measles Outbreak Feared in OFS
(Johannesburg THE NEW NATION, 23 Oct-5 Nov 86)..... 46

TRINIDAD AND TOBAGO

Health Officials Seeking Cause of 'Red Eye' Epidemic
(Port-of-Spain TRINIDAD GUARDIAN, 7 Nov 86)..... 47

TURKEY

State of Malaria Reported
(Ankara YANKI, 28 Jul-3 Aug 86)..... 48

UGANDA

Briefs
AIDS Campaign Funded 52

UNITED KINGDOM

Routine Vaccinations Pose AIDS Threat to Children
(Stephen Castle; London SUNDAY TELEGRAPH, 19 Oct 86)..... 53

Hepatitis B Affecting More Than 2,000 Annually
(K. C. Hutchin; London, THE DAILY TELEGRAPH, 16 Oct 86).... 54

New Meningitis Death; Village Becomes Test Lab (London THE DAILY TELEGRAPH, 7, 8 Oct 86).....	55
Gloucestershire Incidence, by Paul Stokes Rise in Deaths	55
YUGOSLAVIA	
Briefs	
Results of AIDS Testing	57
ZIMBABWE	
STD Approaching Epidemic Proportions in Darwendale (Harare THE HERALD, 31 Oct 86).....	58
ANIMAL DISEASES	
HONG KONG	
Briefs	
Antirabies Campaign	59
INDIA	
Briefs	
Rinderpest in Delhi	60
NIGERIA	
Rinderpest Prevention Campaign, Vaccine Production (Andrew Orolva; Kaduna NEW NIGERIAN, 24 Sep 86).....	61
ST LUCIA	
Government Working To Control Amblyonya Tick Spread (Castries THE WEEKEND VOICE, 11 Oct 86).....	62
SOUTH AFRICA	
Locust Spray Found in Karoo Sheep Carcasses (Johannesburg THE STAR, 27 Oct 86).....	63
Rabies Warning for Natal (Johannesburg THE STAR, 29 Oct 86).....	64

UGANDA

Briefs

Rinderpest Quarantine in Kumi

65

PLANT DISEASES AND INSECT PESTS

INDIA

Briefs

Root Wilt Disease

66

INDONESIA

Briefs

Plant Hopper Attacks Rice Fields

67

NIGERIA

Pests Destroy Farmlands in Sokoto

(Kaduna NEW NIGERIAN, 23, 26 Sep 86).....

68

Eight Local Areas Affected, by Adebisi Adekunle
Invasion Spreading, Other Crops Affected, by
Adebisi Adekunle

68

Pests Destroy Farmlands in Parts of Kano

(Sani Haruna; Kaduna NEW NIGERIAN, 30 Sep 86).....

70

Briefs

Kangaroo Rats Invade Kano

71

SOUTH AFRICA

'Commandos' Mobilize To Combat Threatening Locust Swarms

(Cape Town THE WEEKEND ARGUS, 18 Oct 86; Port Elizabeth
WEEKEND POST, 25 Oct 86).....

72

Teams Standing By

Units Fighting Locust Plague

72

72

Locusts Threaten 56 Farming Areas

(Johannesburg THE CITIZEN, 24 Oct 86).....

73

Locust War Enters Critical Phase

(Johannesburg THE STAR, 30 Oct 86).....

74

UNITED KINGDOM

Caterpillar Killer Called Step Toward Viral Insecticide

(Roger Highfield; London THE DAILY TELEGRAPH, 9 Oct 86)...

75

/12223

BANGLADESH

BRIEFS

DIARRHEA IN FLOOD AREA--Chapainawabganj, Oct 25--Eight persons including four children died of diarrhoea and 300 others were attacked with the disease in flood-hit five upazilas of the district for last few days. The victims are 200 Furkoni, 5, Azad Ali 26, Zobayda, 25, both of village Dalogram under Gomostapur union, Tuhalil, 7, Airena Bibi 22, Latifa 3, both of village Nahadhaire, Rubel, 7, Tarebana, 30, of village Immannagar under Alinagar union. Two medical teams have been working in the affected area. [Text] [Dhaka THE NEW NATION in English 27 Oct 86 p 2] /9274

CHOLERA OUTBREAK--Narsingdi, 23 Oct--One person died of cholera and 75 others were attacked with the disease in different areas of Narsingdi Sadar upazila during last three days. The victim is the wife of one Ashraf Ali of village Baniachal under Narsingdi Pourasabha. Of the attacked persons, 50 are of village Baniachal, 10 of U.M.C. Jute Mill Colony, five of Rangamati and 10 others of Satirpara area. When contacted, the authority of Narsingdi Hospital confirmed the disease as diarrhoea. Consumption of rotten hilsha fish has been stated to be the reason behind the disease. Meanwhile, the hospital authority has sent four medical teams with medicines to the affected areas. [Text] [Dhaka THE NEW NATION in English 25 Oct 86 p 2] /9274

EYE DISEASE EPIDEMIC--Jamalpur, 14 Oct--Ophthalmia has broken out in different upazilas including Sadar upazila of the district for last few days. It is learnt that two or three members especially the children of every family are being attacked with the disease. When contacted, one eye specialist here told this correspondent that inclined weather was the cause of the disease. Our correspondent adds: Eye disease has broken out in an epidemic form in different upazilas of Barguna district. It is learnt that the eyes of the persons attacked with the disease become reddish. According to doctors the disease has broken out due to attack of virus. The patients were advised to take sugar cane for early recovery from the disease. [Text] [Dhaka THE NEW NATION in English 16 Oct 86 p 2] /9274

TUBERCULOSIS STATISTICS--Deputy Prime Minister Prof M. A. Matin said, besides reducing mortality, short-courses chemotherapy could control the spread of tuberculosis (TB) to a great extent in our country, reports BSS. He was speaking at a symposium yesterday on short-course chemotherapy in tuberculosis organised by the Chest and Heart Association of Bangladesh Limited. The deputy premier said that although effective anti-TB drugs were introduced we could not eradicate this deadly disease from the earth. He said it was very

unfortunate that out of half a million of open and infectious cases nearly 80,000 patients die of TB every year in our country. He expressed his hope that the symposium would help exchange views between local physicians and scientists from abroad besides playing positive roles in eradication of tuberculosis from the country. [Excerpt] [Dhaka THE BANGLADESH OBSERVER in English 23 Oct 86 pp 1, 8] /9274

CSO: 5450/0037

BRAZIL

BRIEFS

BUBONIC PLAGUE INCREASE--An epidemic of bubonic plague has broken out in the municipalities of Solanea and Arara, 150 km from Joao Pessoa, Paraiba State. Three persons have already died from the disease. [Summary] [Brasilia Radio Nacional da Amazonia Network in Portuguese 2210 GMT PY] /9738

3,000 AIDS CASES DETECTED--Ricardo Veronese, a specialist in infectious and parasitary diseases, has reported that at least 3,000 of the 7,000 prisoners held at the Sao Paulo penipentiary and detention center have AIDS. Veronese bases his statement on an investigation he conducted among the so-called risk groups. According to Professor Veroneses, promiscuous sexual behavior in prisons is nothing new. [Summary] [Sao Paulo Radio Bandeirantes in Portuguese 1500 GMT 28 Oct 86 PY] /9738

DENGUE CASES IN CEARA--The Superintendency of Public Health Drives in Ceara State has appointed 1,000 men to fight the Aedes Aegypti mosquitoes. They hope to eradicate these mosquitoes in Fortaleza within 36 days. So far, 1,363 dengue cases have been registered in the state, most of them in Fortaleza. [Text] [Brasilia Radio Nacional da Amazonia Network in Portuguese 0900 GMT 30 Oct 86 PY] /9738

CSO: 5400/2006

CANADA

STATISTICS ON MAJOR CAUSES OF DEATH REPORTED

Toronto THE TORONTO STAR in English 28 Oct 86 p A1

[Article by Joe O'Donnell]

[Text] OTTAWA — Heart disease remains the leading cause of death in Canada, but cancer is just behind, Statistics Canada says.

Still, the life expectancy of Canadians continues to rise, increasing by about one year from 1982 to 1985, the federal agency reported yesterday.

Life expectancy at birth among males is now 73 years, compared with 80 years for females. But the increase over the past three years has been greater for men.

Last year, heart disease took the lives of 47,407 Canadians, while cancer killed 46,333. Cancer was the leading cause of death in three provinces — Quebec, Alberta and British Columbia.

The gap between the two major causes of death has been narrowing in recent years, with deaths from heart disease on the decline

and cancer deaths increasing.

The total number of deaths in Canada increased last year from 1984, as did the death rate.

Deaths in 1985 totalled 181,323, compared with 175,727 in 1984. The death rate last year was 7.2 per 1,000 Canadians, compared with 7.0 in 1984.

The 1985 statistics also showed that more females died from cancer than from heart disease, while the reverse was true for males.

Meanwhile, the death rate as a result of external injuries declined for both males and females. Traffic fatalities remained about the same for men, but they increased slightly among women.

While no clear trend was reported for suicides, the total number dropped to 3,259 last year from 3,440 in 1984. The figures dropped for both sexes, but the suicide rate was still nearly four times as high for males than for females.

/12828
CSO: 5420/6

CANADA

AIDS INCIDENCE, GRANT, DENTAL ISSUE DISCUSSED

763 Cases

Windsor THE WINDSOR STAR in English 5 Nov 86 p B10

[Text] OTTAWA (CP) — The experimental drug called AZT will soon be available for AIDS patients who previously suffered from a rare form of pneumonia, Health Minister Jake Epp announced Tuesday.

Perhaps as many as 180 of the 358 people in Canada with confirmed cases of AIDS may benefit from the new treatment, he told a news conference.

AZT, short for azidothymidine, is an anti-viral drug developed by the U.S.-based pharmaceutical company Burroughs Wellcome Inc. It was recently approved for use in the United States after clinical trials showed it can prolong the lives and ease the symptoms of AIDS patients who have had pneumocystis carinii pneumonia.

"AZT is not a cure or a wonder drug," Epp said, "but it offers some hope for AIDS patients by keeping their condition stable as the search goes on for additional means to combat AIDS and its consequences."

Patients who are eligible to get the drug should contact their doctors. In turn, doctors will have to get in touch with special co-ordinators who will be supervising use of the drug in different parts of the country. Burroughs Wellcome is making AZT available free of charge.

AIDS is an invariably fatal disease caused by a virus that destroys the body's natural ability to warn off infections. As of this week, a total of 763 cases of AIDS had been confirmed in Canada — 405 of them were already dead and 358 were alive.

Pneumocystis carinii pneumonia is the disease that is most apt to prove fatal to AIDS patients.

Although select patients will be able to get AZT for treatment in the very near future, the federal government still intends to proceed with further research on possible adverse side effects. That research will begin in January.

Grant to Vancouver

JPRS-TEP-86-028
8 December 1986

Vancouver THE SUN in English 22 Oct 86 p A12

[Article by Anne Mullens]

[Text]

The health ministry has relented and decided to give AIDS Vancouver a grant to pay the salaries of two support workers who counsel AIDS patients and their families.

AIDS Vancouver will receive a grant of \$30,000 for the remaining six months of the fiscal year, Ian Smith, spokesman for the health ministry, said Tuesday.

"We recognize that they are doing good work and we wanted to do something to help them through this emergency," he said.

AIDS Vancouver spokesman Bob Tivey said he was thrilled.

"I am really, really pleased the provincial government has shown us support and I am equally pleased that I don't have to let these good, important people go," he said. "It is a great relief to us to be able to continue to give a level of service to the people that need it."

The ministry refused last month to give AIDS Vancouver a grant of \$80,000 to cover the costs of three employees who counselled families and coordinated volunteers and whose grant from the federal government had expired.

Smith said Tuesday the initial grant was refused because AIDS Vancouver was asking for too much money and it was proposed in the middle rather than the beginning of the fiscal year when the government normally awards its grants.

"But we recognize this is an emergency and they are providing services that we would otherwise have to provide, so in a sense we are purchasing their services. We figured we could come up with \$30,000 somewhere. It gives them some breathing space to try to raise funds from the public to cover as much of their own costs as they can."

According to AIDS Vancouver, there have been 178 AIDS cases in Vancouver to date. Half of those patients are still alive. AIDS Vancouver numbers are slightly higher than official figures from federal government figures for B.C. because some people who are registered in other provinces have moved to B.C. after diagnosis, Tivey said.

British Columbia Dentists

Vancouver THE SUN in English 8 Oct 86 p A10

[Article by Anne Mullens]

[Text] Some dentists in B.C. are refusing to treat patients who have AIDS or have been exposed to the virus, leaving a shortage of dentists available for people suffering from the disease.

Bob Tivey, spokesman for AIDS Vancouver, said in the last week more than five calls have come into the support group's office from people with AIDS or virus-positive people who have been turned down by dentists.

"We're in a mess again," Tivey said. "We are right back where we were 10 months ago with people refusing to treat AIDS patients. And there are very few places where they can go."

The high-risk dental clinic at the University of B.C.'s Health Science Centre will not treat AIDS patients, said Dr. Gary Gibson, head of UBC's dental department and director of the clinic. The clinic so far will treat only patients with hepatitis B infection, a deadly virus also carried in the blood.

Although Gibson agreed the UBC clinic would be the natural place for AIDS patients to be treated because of the similarity of AIDS to hepatitis, he said it has been the hospital's policy to treat AIDS patients only in an emergency.

Robert McDermit, administrator of the hospital, was not available for comment on the hospital's policy Tuesday.

Gibson added the UBC clinic did not have enough facilities and staff to take on the extra demand of treating dental patients with AIDS.

Other dentists in the province have also been refusing AIDS cases, Tivey said. A dentist in Victoria has been asking all patients who are in the high-risk groups to take the antibody test for exposure to the virus. One patient who took the test on the dentist's request found out he was positive for exposure. The dentist then refused to treat him.

Tivey said AIDS Vancouver has been encouraging AIDS sufferers to tell their dentists about their illness, but if they are continually turned away, many may decide not to disclose their illness in the hope of getting treatment.

"This is no way for anyone to go," Tivey said. "We do not want patients to not tell their health status."

Dr. Serge Vanry, president of the B.C. College of Dental Surgeons, agrees with Tivey that to have patients keep silent about AIDS is worse than having dentists know and take the proper precautions when dealing with the disease. But he said he understands dentists' concerns about treating AIDS patients.

"You have to realize we do deal with blood — there is often bleeding from the gums when we work — and therefore we are vulnerable," Vanry said. He added, however, that the use of gloves, mask, safety glasses and good sterilization procedures seem to be ample protection for dentists.

That assumption has been supported by two large-scale studies of dentists treating AIDS patients in San Francisco and New York, released last week at a health conference in New Orleans. The studies showed that even after repeated exposure to blood and saliva of AIDS patients, not one dentist or hygienist had become infected with the AIDS virus.

AIDS Vancouver has a list of the few dentists who will treat AIDS patients but only releases that information to people known to have the disease. Even those dentists are concerned regular patients will find out.

Dentists say the situation will be helped when a high-risk dental clinic is built at Vancouver General Hospital.

/12828
CSO: 5420/5

CANADA

REPORT LINKS DUMP TO HEALTH PROBLEMS IN HAMILTON

Windsor THE WINDSOR STAR in English 5 Nov 86 p B11

[Text] HAMILTON (CP) — Chemical contaminants are the likely cause of health problems suffered by workers and neighbors of a Hamilton dump that was shut down six years ago, says an Ontario Health Ministry report.

Although symptoms like skin rashes and chronic coughing are disappearing with time, people exposed to the contaminants should be the subjects of a longterm cancer study, says the report to be released today.

The committee that prepared the report spent five years and almost \$2 million examining the environmental and human health impacts of the dump, a 30-metre (98 feet) high mound of buried garbage that covers about 16 hectares (14 acres).

Chronic bronchitis, headaches, dizziness, lethargy and anxiety were included in the list of illnesses of residents and workers. More than 5,000 people, including control subjects, were surveyed for the report.

The incidence of health problems was highest when the dump was open and large amounts of waste were being accepted with "no monitoring of what (was) going in, no security and stuff coming from God knows where," Dr. Arthur Bourns, study committee chairman, said in an interview.

Bourns said a cancer registry was being recommended "not because we have any evidence whatsoever that

suggests (they) are at risk from cancer, but nevertheless we believe that we should keep a count of what's happening.

"I would be immensely surprised if anything was found."

The study discovered that residents who lived closer to the dump and for longer periods had a higher incidence of health problems — "strong evidence in support of an association between the observed health problems and chemical exposure."

But it also found the excess health complaints have been disappearing since 1980, when the dump was shut down, and concludes "there is no convincing evidence that exposure to the landfill after it was closed and covered in 1980-81 has led to health problems among area residents."

Digging up the landfill to dispose of its contaminants properly would do more harm than good, the report concludes.

Bourns said it's possible the dump may contain undetected drums of toxic waste that could rupture and leak new hazards. However, he said, "one has to balance that low probability against the fact that excavating that site ... would expose a lot of people to a lot of materials, possibly dangerous materials."

/12828
CSO: 5420/6

CANADA

BRIEFS

1985 TB INCIDENCE--Reported cases of tuberculosis fell to a record low in 1985, Statistics Canada says. The federal agency reported 2,144 new active or reactivated cases of TB last year, or 8.5 cases for every 100,000 people. [Text][Toronto THE TORONTO STAR in English 6 Nov 86 p A8]/12828

CSO: 5420/6

DENMARK

EXPLOSIVE INCREASE IN AIDS CASES FEARED

Number of Cases

Copenhagen BERLINGSKE TIDENDE in Danish 3 Nov 86 p 1

[Article by Poul Erik Petersen: "Explosion in Number of AIDS Deaths"; first paragraph is BERLINGSKE TIDENDE introduction]

[Text] An alarming British study can be applied directly to Danish conditions, according to Professor Viggo Faber. Even the development of a vaccine could not halt the explosive development in the short run.

Within just a decade there will be 2-4,000 AIDS fatalities a year in Denmark.

This statement was made by one of the country's leading experts in the field, Professor Viggo Faber of the National Hospital.

"This is unavoidable unless people stop having sexual relations and at the same time we stop giving blood transfusions," he told BERLINGSKE TIDENDE.

Not even the production of a vaccine could halt the almost explosive development of the disease right away because many people have already been infected without any symptoms having appeared yet.

And the disease is no longer limited to homosexual circles. "It has spread to heterosexuals and we have already seen children with AIDS," said Professor Viggo Faber.

Professor George Knox of Birmingham University in England has made a computer analysis of the anticipated spread of the disease in England. The analysis predicts that 20-40,000 people will die each year in 10 to 20 years. "These figures can be directly applied to Denmark simply by dividing by 10, because the population in this country is a tenth of the population there," said Viggo Faber. "The pattern in this country is the same as it is in England."

In October there were 120 AIDS patients in Denmark. The figure is expected to double within the next year. It is estimated that cases will double every 9 months. In some parts of Europe this happens more rapidly. In Italy, for example, the number of AIDS cases doubles in only 4 or 5 months.

Money for Prevention

Copenhagen BERLINGSKE TIDENDE in Danish 3 Nov 86 p 7

[Article by Poul Erik Petersen: "Ten Million for AIDS Information Program"; first paragraph is BERLINGSKE TIDENDE introduction]

[Text] Some 10.5 million kroner will be spent in 1986-87 on an AIDS office set up by the National Health Agency. The office, which will operate in a professional and modern way, will be responsible for providing broad information on the disease. A direct telephone line where everyone can get answers to questions about AIDS has also been set up in cooperation with the National Association of Gays and Lesbians.

The Danish people will now receive massive and extensive information about the AIDS disease.

The National Health Agency has set up an AIDS office for this purpose and plans call for providing 1.5 million kroner in 1986 and 9 million in 1987 for a broad information campaign on the disease.

The estimated amount for 1987 depends on the budget bill being approved, however.

Two Objectives

Dr Lone de Neergaard, head of the recently-opened office, told BERLINGSKE TIDENDE that the information campaign has two main objectives.

One is to tell people how they can catch the disease and the other is to tell them the ways in which the disease cannot be transmitted.

Dr Lone de Neergaard continued:

"People must not be allowed to go around with the unrealistic idea that they cannot have ordinary social contacts with AIDS-infected people. Unfortunately we have seen some examples of how infected people have been virtually ostracized as a result of ignorance and unnecessary fear on the part of their friends and acquaintances."

Professional Approach

The AIDS office will work in a professional and modern way. Agreements have already been arrived at with Morten Jersild Advertising Bureau which will take care of such things as preparing posters, advertisements, movie shorts and music videos aimed at providing information about the disease.

Starting today people can also get information on AIDS over the telephone. A direct telephone line has been set up with the number 01-91 11 19. It is in operation every day of the week from 9 am to 11 pm. Volunteers man the

telephones to answer all questions about the disease. The AIDS line was set up in cooperation with the National Association of Gays and Lesbians.

Other professional staff members at the AIDS office in addition to Dr Lone de Neergaard are Dr Eva Hammershoy and Henning Jorgensen.

The office will not be in charge of all information activity itself but will work with counties, communities and private organizations.

Courses Around the Country

Courses will be held around the country for educators and workers in the health and social service sectors. "Key people will be trained in each county who will be responsible for this course activity with support from the AIDS office," said Lone de Neergaard.

The office will contact the Doctors' Association in an effort to get doctors to give their patients more advice about AIDS.

One this point the office is in complete agreement with Chief Medical Officer Henrik Zoffmann of the National Serum Institute.

More Forceful Attitude

He had this to say at a congress of 400 practicing doctors in Helsingor over the weekend:

"Practicing doctors must adopt a much more forceful attitude toward the AIDS problem.

"You must try to find out which of your patients belong to the high-risk groups. You must ask your patients about their sex lives and if you find people who could be exposed to AIDS you should advise them how they can avoid infection.

"This is something you would rather not do, but although it is difficult it is urgently necessary."

Editorial Comments

Copenhagen BERLINGSKE TIDENDE in Danish 3 Nov 86 p 10

[Editorial: "Shedding Light on AIDS"]

[Text] At the same time as the Danish National Health Agency is setting up an AIDS information office both American and English reports make it clear that the disease will inevitably spread to all population groups and that the only thing that can halt the spread of the disease is taking precautions in sexual activity. Effective treatment methods, not to mention a vaccine to prevent the disease, are still far in the future.

It has once more been established that making the disease a criminal matter will only make a bad situation worse. The healthy carriers of the disease are still in the majority and it is extremely important that everyone who has reason to believe that he has been infected can set his mind at rest. But it is just as important to inform the entire population about what to avoid--and what they do not have to fear.

There no longer seems to be any doubt that only direct contact between sexual organs and mucous membranes (whether sexual or not) can transmit the disease. The use of condoms is therefore obligatory if one is not sure that one's partner is free of the disease. There is no risk in having social and other contacts with people who have been infected or suffer from the disease itself. They need and are entitled to the same help and care that we now give patients with lung cancer or multiple sclerosis.

6578

CSO: 5400/2412

GAMBIA

BRIEFS

AIDS DIAGNOSED--Four cases of Acquired Immune Deficiency Syndrome (AIDS) have been diagnosed recently in the Gambia, health officials said in Banjul yesterday. A statement by The Gambia, Medical and Dental Association said one of the victims had since died. [Text] [Lagos DAILY TIMES in English 3 Oct 86 p 2] /9274

CSO: 5400/38

GUYANA

MALARIA SITUATION GETTING HEIGHTENED ATTENTION

Assistance From USSR

Georgetown GUYANA CHRONICLE in English 8 Oct 86 pp 4-5

[Excerpt] Guyana and the Soviet Union yesterday signed an agreement on cultural and scientific exchanges for 1986-87.

The agreement entails the exchange of personnel and information as well as training in the fields of science, education, health, culture and art.

Under the agreement, Guyana would receive a number of scholarships in medicine, science and other relevant disciplines.

Guyana and the USSR would also collaborate in the campaign aimed at the eradication of malaria from Guyana.

Drugs Donation

Georgetown GUYANA CHRONICLE in English 9 Oct 86 p 1

[Text]

The Ministry of Health's anti-malaria campaign was yesterday morning further strengthened with the donation of a quantity of drugs by the Guyana Gold and Diamond Miners' Association.

In an effort to assist in the malaria eradication programme members of the Association decided to use some of the foreign currency allocated to them to purchase the drugs for the Ministry.

The gold industry's foreign exchange account scheme was effected last October allowing miners the foreign currency equivalent of 20 per cent of sales to the Guyana Gold Board for them to meet business expenses requiring foreign currency.

With the aid of the

Caricom Secretariat, the Association was able to purchase the drugs from Barbados.

Receiving the drugs on behalf of the Ministry, Medical Officer of Health, Vector Control, Dr. Keith Carter, said that the Miners' Association has over time been assisting the Ministry in its anti-malaria programme by providing transportation for medical personnel serving at interior locations.

Meanwhile, the Ministry has recently launched a two-week course in microscopy for Medexes, Regional Health Officers and Military Health Personnel.

The course, which is being conducted by Dr. Francisco Paniagua of Costa Rica, is aimed at enabling participants to detect the malaria disease.

Georgetown CATHOLIC STANDARD in English 12 Oct 86 pp 1, 3

[Text]

A TWENTY-NINE year old woman from Industry has been confirmed as having malaria.

What is interesting about this particular case is that the woman, Mrs. Nandanee Khan, claims she has never travelled into the interior or even very far along the coast.

The furthest she has travelled from her village or workplace she says, is to the Starlight drive-in cinema.

In July of this year also a little boy of six or seven years from Guyhuc Park was confirmed as having malaria.

He too had never travelled to the interior.

It would appear therefore that the malaria mosquito is now on the coast.

There have been numerous other incidents of malaria in Georgetown before, but these have been cases where persons travelled to the interior and then returned to Georgetown, where the symptoms developed.

Both Mrs. Khan and the little boy are reported to have the more dangerous type of malaria, falciparum.

One doctor told the Standard that "Falciparum equals death if it is not treated."

Mrs. Khan was recently promoted from Secretary in the Exams Division at the University of Guyana, to Senior Clerk in the Admissions Division, and is six months pregnant. The drugs she has to take for the malaria may affect her baby, one doctor told her.

If the malaria vector (or carrier) has again taken root on the coast, this is cause for great alarm, and certainly the government will have to take immediate emergency measures.

A Ministry of Health/Paho team were reportedly scheduled to go into Industry and other areas to check what type of mosquitoes are breeding, whether of the anopheles darlingi type, which is an excellent carrier of malaria, or whether the mosquito responsible for the coastal cases is of the anopheles aquasalis type, which can spread malaria but are not good vectors.

Malaria had once upon a time been eradicated along the coast.

In recent years however, the incidence of malaria in Guyana has reached very alarming proportions including a dramatic increase in the incidence of falciparum, which can cause brain damage.

The following statistics reveal just how bad the situation is.

In 1983, 2,029 Guyanese contracted malaria.

In 1984, this number increased by over a thousand more patients to 3,037.

In 1985, the disease more than doubled to 7,900 cases.

Staggeringly, by July this year last year's totals have already been reached, with 7,424 persons contracting the disease in only half the year.

This means that in only three and a half years, 20,390 Guyanese have been exposed to malaria.

/9274
CSO: 5440/021

GUYANA

CRACKDOWN ON POOR CONDITIONS AT DRUG-SELLING PLACES

Georgetown GUYANA CHRONICLE in English 21 Oct 86 p 4

[Text] The Analyst/Food and Drug Department, the agency responsible for enforcing the Food and Drugs Act and Regulations, has issued notices of violation to a number of drug establishments which, after inspection, were found to be operating under substandard conditions.

A release from the Department, which is in the process of stepping up its monitoring of the storage and sale of drugs, said that within the past few months over 150 inspection visits were made to drug stores, patent and proprietary shops, emergency shops, dispensaries and drug bonds in Georgetown, New Amsterdam, Linden and the East Coast and East Bank, Demerara. As a result of these visits, notices were issued to the owners of some of these establishments to put themselves in order within a specified time.

Some of the irregularities noted during the inspections were operations under unsanitary conditions, prescription drugs being sold over the counter, prescription drugs being sold in the absence of a pharmacist, improper records of prescription drugs dispensed and lack of monitoring expiry dates of drugs exposed for sale.

Substantial amounts of expired drugs were also seized and general advice given, including the danger of selling or dispensing expired drugs.

The Commissioner of Food and Drugs is reminding owners of drug establishments about Section 9 of the Food and Drugs Act, which states that any person who sells any drug that (a) was manufactured, prepared, preserved, packed or stored under unsanitary conditions, (b) is adulterated or (c) is stale/expired, is guilty of an offence.

He also insists that no person should sell a prescription drug unless he or she receives a prescription and such prescription shows (a) the name and address of the person for whom the drug is dispensed (b) the name and quantity of the drug specified (c) the directions for use (d) the date of the prescription and (e) the signature of the practitioner who issued the prescription.

A record of every prescription should be retained by the dispenser for a period of at least two years. The release stated that the inspection of drug establishments/premises is continuing, and is expected to touch the other administrative regions of Guyana.

/9274

CSO: 5440/021

GUYANA

REGISTRY PROVIDES DOCTOR RATIO, OTHER STATISTICS

Georgetown MIRROR in English 19 Oct 86 p 1

[Text] A list of medical personnel registered in Guyana was gazetted recently. A breakdown of the designations and specializations is as follows:

- Medical Practitioners 259.
- Temporary registration 15.
- Temporarily registered Cuban Medical Team 26.
- Provisional registration 32.
- Registered dentists 28.
- Cuban dentists registered 3.
- Registered opticians 13.
- Sicknurses and dispensers 33.
- Medex registered 10.

The information was gazetted by the Medical Board and pertains to full registration for 1986 up to September 10, 1986.

The real situation however is not so. While those medical personnel may have registered (or caused themselves to be registered) informed sources say that 39 of the doctors on the list are not in Guyana at the moment. They are overseas.

The population of Guyana varies widely depending on whom the government of Guyana wants to communicate with. For elections is is one figure; for the IMF and the World Bank, it is another; for propaganda, it is another still. Several government departments use different population statistics. For the health services the figure is apparently 789,000.

If we assume that 789,000 is correct (based on the census total of 758,615 in 1980) and that the actual number of doctors in Guyana is 306, then the doctor population ratio is one doctor to every 2,578 people.

In the Plan of the Americas, the acceptable ratio proposed by experts is one doctor to every 850 of the population. Guyana is therefore having a level which is one-third what the recommendations propose and therefore keeps company with the most backward Latin American and Caribbean regimes.

This situation is far from satisfactory, because most of the doctors in Guyana tend to concentrate in urban zones and suburbia with vast hinterland and riverain zones left to fend for themselves. Some places in the interior have not seen a doctor or dentist for two decades. Amerindians in the interior travel long distances (60 miles or more) for medical attention.

Doctors are also short at public institutions, and were it not for the Cuban doctors the crisis would have been more acute. Psychiatrists are also much in demand. Visual observation conveys the impression that the ranks of mad citizens are increasing steadily. They need specialised care which is not available so many of them are turned loose on the streets.

/9274
CSO: 5440/021

HONG KONG

GOVERNMENT SCORED FOR POOR HANDLING OF AIDS WARNING

Hong Kong SOUTH CHINA MORNING POST in English 13 Oct 86 p 2

[Text]

THE Government was accused of misconduct in handling an AIDS case last month, when it failed to sound an instant warning of a suspect carrier of the disease to nursing staff at Queen Mary Hospital.

It was also criticised for subsequently failing to heed a medical group's call to plug the loophole which caused the delay.

Early last month, a renal patient at the hospital was found to react positively to acquired immune deficiency syndrome tests after doctors tracked him down.

Seven days lapsed before a doctor at the hospital, who first learned from records that the patient might be a carrier of the disease, told his colleagues.

He broke the news only after test results were obtained.

The Association of Government Nursing Staff yesterday said medical staff should be alerted once an AIDS patient or carrier is suspected, so precautions could be taken to protect them and other patients.

The association urged clear guidelines on who should take responsibility for giving the warning and when it should be given.

Spokesman Mr Michael Ho said the stipulation was lacking in the existing Guideline on the Management of Acquired Immune Deficiency Syndrome drawn up by the Government.

It places the decision in the hands of doctors.

/9274
CSO: 5450/0034

HONG KONG

PAPER DISCOVERS COVER-UP OF SEPTEMBER AIDS DEATH

Hong Kong SOUTH CHINA MORNING POST in English 16 Oct 86 p 1

[Article by John Beasant]

[Text]

AN assistant food and beverage manager who worked at the Peninsula and the Holiday Inn Golden Mile hotels died of AIDS in September last year, the *South China Morning Post* has learned.

Mr Bernardo Rodriguez, 31, a Portuguese national, died in a Government hospital on September 6.

The cause of death was officially recorded as "intestinal pneumonia".

AIDS - acquired immune deficiency syndrome - destroys the body's natural immunity against infection. AIDS victims contract a variety of rare ailments such as Kaposi's sarcoma and pneumocystis carinii pneumonia, a parasitic type of pneumonia.

At the time of his death Mr Rodriguez was assistant food and beverage manager at the Holiday Inn Golden Mile.

Mr J.M. Charpenet, who was appointed general manager of the hotel in October last year, said last night he had no comment to make beyond confirming that records

showed that up to the time of his illness, Mr Rodriguez had been a valued member of the senior staff. The hotel expressed regret at the time of his death.

A Peninsula executive said Mr Rodriguez resigned as assistant food and beverage manager at the end of 1984 and up to that time had been "in perfect health".

He was a popular figure at both hotels where his professional ability won him personal respect.

Mr Rodriguez first became unwell in mid-May last year and was referred to a Government hospital by his own private doctor who suspected AIDS.

He received treatment but was not formally admitted until the second week of July. It is believed he was discharged later the same month in a stable condition.

But he was re-admitted in late August and died on September 6.

Medical and Health Department spokeswoman Mrs Juliana Ma declined to comment on the circumstances of Mr Rodriguez's death, or to

confirm or deny the details the *Post* supplied to her.

Between February and September 1985, the department confirmed the deaths from AIDS of three Hongkong residents, but released few details of each case.

The department said an AIDS victim died on September 6, describing him only as a "24-year-old man".

Asked to comment on the circumstances of Mr Rodriguez's death, a leading Hongkong physician was critical of the Government secrecy towards AIDS.

"This excessive secrecy is doing irreparable damage in the public mind," he said.

"Many knew the true cause of Mr Rodriguez's death, but because of the antiquated attitude here, none was prepared to comment.

"Such an officially-inspired attitude is generating an irrational and totally groundless fear. There are no circumstances in existence whereby anyone staying at either of the two hotels could have contracted AIDS because of the dead man's job there."

"AIDS is, in fact, impossible to contract through normal social contact; it is not a very infectious disease at all."

Another senior physician said the Government's attitude was "in effect promoting fear and hysteria where neither exist".

He said: "AIDS can only be contracted by systematic intimate contact, or through transmission of infected blood."

"To cover up, to conceal facts, as has apparently occurred in Mr Rodriguez's case, is to fuel public ignorance and fear."

He said such a policy could cause mistrust among many in Hongkong who would otherwise go forward for blood tests as a matter of course and, in the process, establish whether or not they were carriers of the AIDS virus.

Another source said the question of AIDS would be "best dealt with by public education, instead of pretending it doesn't exist here. This would dispel both public ignorance and mistrust".

/9274

CSO: 5450/0036

HONG KONG

AIDS CASES RISE, WARNINGS RELEASED

HK030559 Hong Kong SOUTH CHINA MORNING POST in English 3 Nov 86 p 1

[Article by Sa Ni Harte]

[Text] At least 69 people in Hong Kong have been exposed to the AIDS virus--44 of them haemophiliacs--and three have died. This is an increase of 16 since the government released the first set of figures in December last year.

With the latest figures came a warning from the government that although in Hong Kong and most parts of Asia AIDS is predominant among the homosexual group, it could spread to heterosexuals.

This warning came from Dr E.K. Yeoh, chairman of the government's Scientific Working Group which is in charge of monitoring the AIDS (acquired immune deficiency syndrome) problem.

Between last April and September this year the virus unit of the Medical and Health Department conducted a total of 30,012 HIV (human immune deficiency virus) tests.

Of the 69 people found to have AIDS antibodies, 44 were haemophiliacs (a third of them children), six were patients of social hygiene clinics, 10 referrals from private practitioners and nine were patients at government hospitals or clinics--including three confirmed AIDS patients who died in 1985.

De Yeoh stressed that a positive test indicated a person had been exposed to the virus and might be a carrier, but he or she might not develop AIDS.

Some studies have reported between 5 to 30 percent of individuals who were antibody positive would eventually develop AIDS, he said.

"AIDS is in Hong Kong but there is no fear of an explosive spread," he said. "However, there should be no room for complacency. We need to keep up our efforts because if it spreads, it would be difficult to contain."

"But because of its low prevalence we are in a good position to try and limit the spread, and health education measures are even more valuable."

The department will continue with its surveillance program including the health education and counselling service to monitor the AIDS situation in Hong Kong.

Of the 69 people exposed to the AIDS virus, 23 contradicted it by sexual contact. Dr Yeoh said most had contracted the virus by heterosexual contacts with prostitutes abroad.

About 1,200 female prostitutes who attended the social hygiene clinics had been tested but none of the results were found positive. "This does not mean there are no prostitutes in Hong Kong who are not positive--we have tested only those who turned up at the clinics," he said.

Dr Yeoh said that there were ways to reduce the risk of contracting the virus. These include:

- Engaging only in monogamous relationships;
- Having sexual contact without the exchange of body fluids; or,
- Using barrier contraceptives such as condoms.

Although haemophiliacs comprised 64 percent of those exposed to the AIDS virus, Dr Yeoh said he did not expect any more positive cases from this risk group. Some 200 haemophiliac patients in Hong Kong have been receiving regular treatment with blood products imported from the United States, where AIDS is prevalent. But the blood products have been made virus-free since August last year by a form of compulsory heat treatment.

The Hong Kong Red Cross Blood Transfusion Service also reported three positive AIDS test results from its donors between April 1985 and September this year. In August last year the Red Cross started its mass screening program--the first city in the Southeast Asia region to do so--and a total of 156,710 tests were carried out on blood donors. Of the donors, three were positive and were counselled by the Red Cross and advised to contact either their own private doctors or the government AIDS clinics.

Dr Yeoh said the necessity for blood donor screening for antibodies was illustrated by the fact that two newly-detected people with antibody positive had received blood transfusions in 1984 before the screening program.

He dismissed fears of contracting AIDS by casual contact such as shaking hands, or being in the same room with someone who has been exposed to the virus.

AIDS is transmitted by three routes--sex, needles, blood transfusions--and perinatal (mother to infant during birth).

/9604
CSO: 5400/4108

INDIA

SEMINAR DISCUSSES INCIDENCE, CAUSES OF CANCER

New Delhi PATRIOT in English 12 Oct 86 p 5

[Text]

Lucknow, Oct 11 (PTI)—About 1.5 lakh cases of cancer are reported every year in the country's various hospitals and if the present trend continues, the figure may touch the five lakh mark a year by 2000-AD, a two-day national seminar on "present trends in oncology" which opened here yesterday, was told.

Sixty per cent of cases occur in males only and most of them are of oral cancer. Use of tobacco, cigarettes and betel contributes most in such cases, said Dr R S Rao, an eminent cancer surgeon at Tata Memorial Cancer Centre, Bombay, and also the president of oncology of Association of Surgeons of India (ASI).

Dr Rao said bidi smoking was very common among 80 per cent cases of cancers and thousands engaged in tobacco industry were exposed to its risk.

He regretted that bidi packets did not carry even the statutory warning like that of cigarette packets.

He said the Government should take steps to improve the quality of tobacco.

Dr Rao said though the Government had set up 10 regional cancer centres under the national cancer control programme, they were not sufficient and suggested that more centres should be set up to cover more affected people.

He also suggested that medical colleges be made nucleus of such programmes and primary health centres and para-medical staff should be associated with the programme.

Delivering the presidential address, Dr Ashok Mehta, Tata Memorial Centre and president of ASI, said to fulfil the pledge of 'health for all by 2000' Government will have to change its strategy and encourage both trusts and institutions.

It was in this respect that Government should standardise education and training at post-graduate level, and improve the service conditions, he said.

Dr Mehta urged the Centre to order a cut in import duty of various medical instruments which were not available in the country. There has been a 100 per cent duty on such items and it was impossible to acquire them, he said.

Speaking on the occasion, Uttar Pradesh Health Minister Lokpati Tripathi said all the seven medical colleges in the State had been provided with a 'cancer detection unit'.

The conference was inaugurated by the Lucknow University vice-chancellor Dr S P Nagendra.

Over 100 experts, including the country's top cancer specialists attended the conference, organised by the surgery department of the King George's Medical College.

/13046
CSO: 5450/0027

INDIA

MINISTER GIVES DETAILS OF ENCEPHALITIS EPIDEMIC

Calcutta THE TELEGRAPH in English 21 Oct 86 p 5

[Text]

Guwahati, Oct. 20 (UNI): The last minute postponement of the Prime Minister, Mr Rajiv Gandhi's visit to Assam for an aerial survey of the flood-hit areas today has been resented at different circles.

The Assam home minister, Mr Bhrigu Kumar Phukan, when contacted, said the state government was intimated of the cancellation last night. An official release issued here this evening took exception to a television news bulletin on October 19 saying that the Prime Minister's proposed tour to Assam was postponed at the request of the state government.

Clarifying the position, the release said as the state government and the people of Assam welcomed the Prime Minister's gesture and were awaiting his visit to the flood affected areas at the time of distress, "The question of asking for postponement of his visit does not arise."

The release said since the state government had at no time suggested the postponement of the Prime Minister's visit, it is not clear how Doordarshan put out the news item. Considerable resentment was also expressed in both the ruling AGP and the Opposition Congress(I) circles here at the cancellation.

Rivers receding: Surface communications remained disrupted in different parts of

Assam today though major rivers were receding.

Official reports here said the Brahmaputra was flowing below the danger level all along its course, but some rivers were flowing above the mark.

The chief minister, Mr Prafulla Kumar Mahanta, visited some of the worst affected areas in Nowgong district.

The current floods have affected more than 2.2 million people. About 579,000 people have taken shelter in 607 relief camps in Jorhat, Nowgong, Cachar, Karimganj and Kamrup districts.

An official release said the government has released Rs 91 lakhs for flood relief. About 900,000 cattle have been affected, the release added.

A Sibsagar report said disruption of surface communication between Upper Assam and Lower Assam had resulted in prices of essential commodities going up.

A 13 member medical team from the Assam Medical College, Dibrugarh, arrived at Jorhat today and proceeded to Sarupathar. About 30,000 people in the relief camps have already been innoculated against cholera.

A Red Cross team which surveyed the flood-affected areas found that though the state government was supplying rice, dal,

/13046
CSO: 5450/0029

INDIA

MINISTER REFUTES GASTROENTERITIS EPIDEMIC RUMORS

Calcutta THE STATESMAN in English 21 Oct 86 pp 1, 9

[Text] The Infectious Diseases Hospital at Beliaghata, Calcutta, has received 971 cases of gastroenteritis from Calcutta, South 24-Parganas and North 24-Parganas during the three weeks of October. Thirty-three victims, mostly children, have died. Hospital sources said in Calcutta on Monday that in the same period last year there had been a little over 750 cases so that the increase cannot be considered "abnormal". The incidence is mainly in Tiljala, Topsia, Tangra, Sonarpur, Garia and Rajarhat areas.

Mr Ambarish Mukherjee, West Bengal, Minister of State for Health, told reporters that after the recent floods in south Bengal, he had received confirmation of 65 deaths from gastro-enteric ailments. He denied that the incidence of these diseases had assumed epidemic proportions.

Hospital sources said that several ailments such as diarrhoea, amoebic dysentery, bacillary dysentery, giardiasis, and cholera could be classified under gastro-enteric diseases. The incidence of bacillary dysentery and cholera was minimal.

Cholera tests had revealed that the disease had not broken out.

Dr S. C. Pal of the National Institute of Cholera and Enteric Diseases said that the institute had tested five blood samples taken from patients at I.D. Hospital. Four of these samples contained cholera germs.

Dr Pal said there was a localized epidemic at Ghuni village in the Rajarhat area of North 24-Parganas where 28 cases of diarrhoeal attacks were reported during the past few days.

At Dr B. C. Roy Memorial Children's Hospital, people suffering from gastro-enteric diseases are coming for treatment almost every day. But very few have been admitted because the cases are not severe. However, a large number of children, suffering from respiratory ailments such as broncho-pneumonia and bronchiolitis, have been admitted.

/13046
CSO: 5450/0030

INDIA

CORONARY DISEASES SAID TO BE A MAJOR KILLER IN INDIA

Bombay THE TIMES OF INDIA In English 20 Oct 86 p 3

[Text]

SRINAGAR, October 19 (UNI):
Nearly five million people die in
India every year of coronary dis-
eases, including high blood pressure,
mainly for lack of public education.

This was disclosed at a press
conference here organised in connec-
tion with the joint annual conference
of the Cardiological Society of India
and the Association of Theracic and
Cardiovascular Surgeons of India.

Briefing reporters, the doctors yes-
terday described coronary diseases
as the second major killer among
adults in India, after respiratory
infection.

According to Dr. Shantilal Shah,
the incidence of coronary disease in
the country was about 5 per cent in
urban areas but less than ten per cent
in rural areas.

Mr. Solomon Victor of Madras
said that only one out of 20 patients
in India can afford open heart sur-
gery.

Dr. C. C. Kar warned that excess use
of mustard oil would create high
incidence of heart ailments at a
premature age.

According to Prof. Nair of Jaslok
Hospital, Bombay, the incidence of
rheumatic heart at 15 per 1,000 was
the highest in Kashmir valley.
Kashmir's also had the highest in-
cidence of blood pressure, owing to
increased consumption of salt and
fatty foodstuff and little exercise.

The conference was organised by
the state chapter of Cardiovascular
Society of India.

/13046
CSO: 5450/0028

INDIA

BRIEFS

ENCEPHALITIS IN ANDHRA PRADESH--Vijayawada, Oct. 18. Thirty children died of encephalitis in the last 15 days in Guntur and Prakasam districts of Andhra Pradesh now in the grip of the dreaded disease commonly called the brain fever. The children's ward in the Government Hospital at Guntur is crammed with children. [Text] [Madras THE HINDU in English 19 Oct 86 p 12] /13046

MYSTERY DISEASE DEATHS--Shimla (PTI): Fifteen children were reported to have died of a disease similar to measles in Chango, Nako and Maling villages in Pooh sub-division of Kinnaur district, official reports said here on Wednesday. In the Hangrang valley, about 130 children are reported to be down with the illness. Further details are awaited. [Text] [Calcutta THE TELEGRAPH in English 2 Oct 86 p 4] /13046

CSO: 5450/0031

INDONESIA

BRIEFS

TUBERCULOSIS DEATH TOLL--Jakarta, 5 Nov (AFP)--Tuberculosis kills an average of 150,000 Indonesians each year, a newspaper quoting a spokesman of the Indonesian Lung Doctors Association reported Wednesday. The newspaper BISNIS INDONESIA quoted Dr. Erwin Peetosutan as saying that though much efforts have been done [as received] to eradicate the disease, current conditions were not much different from the situation 20 years ago. He said around 70 percent of TB sufferers were out of reach from [as received] medical treatment and more than 50 percent of them stopped treatments halfway. Dr Peetosutan added that TB eradication should be focused on efforts to develop new treatment and healing techniques, instead of remaining wholly dependent on the existing vaccination. [Text] [Hong Kong AFP in English 0521 GMT 5 Oct 86 BK] /9738

CSO: 5400/4312

KENYA

HEALTH OFFICER CAUTIONS ON NEW AIDS DRUGS

Nairobi THE WEEKLY REVIEW in English 10 Oct 86 p 12

[Excerpt

The press reports about the discovery of AIDS drugs were greeted with caution from medical quarters in Kenya. The chief public health officer, Dr. Norman M. Masai, was quoted by *The Kenya Times* as having said that Kenyans should not be complacent as a result of the claims by companies that they had discovered a treatment for AIDS. Said he, "We should wait patiently until we know that the vaccine is suitable and easily available at a cost that most countries can afford". Masai warned that while research was continuing, Kenyans should desist from engaging in sexual relationships with varied partners. He contended that this would not be unduly difficult because "even in our own African culture promiscuous sexual habits have never been accepted as a social norm". Masai was closing a seminar in Nairobi on the killer disease, which is one of the many programmes the ministry of health launched in the country about two months ago in a bid to enlighten people on the nature of AIDS, how it is contracted, how it spreads and the possible ways of

preventing its spread.

Other speakers at the workshop blamed prostitutes for being some of the carriers of the disease and produced statistics showing that, of 600 prostitutes screened for the disease, six per cent had been found to have the AIDS virus while the majority had symptoms of the disease. Dr. J.O. Ndinya Achola of the Kenya Medical Research Institute argued that prostitutes from the middle income group entertained an average of 124 partners in a year, while those of the lower income group had 963; he said that the only way of preventing the spread of the disease was to stop promiscuity. According to Achola, all the tests done in Rwanda, Zaire and Kenya showed that prostitutes and their clients were the reservoirs of AIDS. But another speaker, Dr. Francis Plummer, of the Department of Medical Microbiology at the University of Nairobi, said there may be many more Kenyans with the disease who did not yet know it, since the disease's incubation period lasts between five and six years. ■

/9274
CSO: 5400/49

KENYA

BRIEFS

AIDS DEATH REPORTED---A woman has died of AIDS at the Thika General Hospital. The victim of the deadly disease was a 30 year-old and a mother of three. She died last Friday and the death was confirmed by the Thika medical officer of health, Dr Richard Kimani. She came from Murang'a. Dr Kimani said that the disease was positively identified through laboratory test at Kenyatta National Hospital, [Text] [Nairobi THE KENYA TIMES in English 10 Oct 86 p 32] /9274

CSO: 5400/49

NICARAGUA

13,000 MALARIA CASES, JANUARY-SEPTEMBER

Managua BARRICADA in Spanish 10 Oct 86 p 8

[Text] The death of 8 people (out of 13,000 cases reported between January and September) from malaria reveals a slight decline in the epidemiological control that had been achieved over that illness, said Dr Ramon Cruz of the National Malaria Control Department of the Ministry of Health (MINSA).

He explained that as a consequence of the war of aggression, there is a constant stream of migration from the countryside to the city and vice-versa, which is a negative factor in effective epidemiological control. This control is also adversely affected by the fact that broad sectors of the population do not take their medication responsibly.

Taking this into account, Dr Cruz stated that we cannot hope to eradicate malaria in the short term, just to control it.

Malaria has centers of focalization in every region of the country. In Chinandega, for example, it is focalized in the areas of Somotillo, Chichigalpa, Puerto Morazan, El Realejo, and rural banana production areas. The antimalaria program in this region is hampered by a shortage of technical personnel for spraying insecticides. Moreover, the majority of the patients do not take all of the prescribed medication.

Among those who died, three belonged to the EPS and came from special zones. "Cerebral, hepatic, pulmonary, renal, and other types of malaria are the major complications of the illness, and they lead to death," said Dr Cruz. He noted that two types of plasmodium, vivax and falciparum, prevail in Nicaragua.

The incidence of malaria in Nicaragua fell from 25,000 to 17,000 cases in 1981, as the National Literacy Crusade brought medication to every corner of the country. Now it appears that the total number of cases per year will rise from 15,000 to 18,000 in 1986.

8926
CSO: 5400/2007

NICARAGUA

TRAVELERS FROM CUBA CHECKED FOR CONJUNCTIVITIS

Managua EL NUEVO DIARIO in Spanish 22 Oct 86 pp 1, 12

[Text] Yesterday the Ministry of Health issued a warning about the threat of an epidemic of hemorrhagic conjunctivitis which exists in the Caribbean.

Dr Leonel Arguello said that the initial steps have been taken to keep this disease out of the country, by checking travellers coming from Cuba.

A medical team is in charge of checking all individuals who enter the country; those suffering from conjunctivitis are issued notes directing them immediately to the nearest health unit.

This physician also called upon the population to observe the basic rules of hygiene in order to avoid this disease.

Dr Arguello said that conjunctivitis is caused by the enterovirus 70, found mainly in the eyes. Its symptoms are pain, tearing and reddening of the eyes and inflammation of the eyelids. It lasts 7 days and takes 2 days after contact with or use of items used someone infected with it to incubate. The use of eye drops is necessary only if it is accompanied by a bacterial infection or complications develop.

This physician emphasized that no corticosteroid solutions should be used, although they seem to improve the condition for a while. However, they may extend its duration and facilitate the development of other infections, and can cause ulceration of the cornea and even loss of sight. This type of medication should be used on the recommendation of a specialist.

For the treatment of this disease, he recommended the use of a solution prepared at home with boiled water and salt, to be applied six times daily, or more if needed by the patient. The mixture consists of half a teaspoon of salt to each half liter of water.

Infected children or working people must be isolated from other comrades. All those affected should be treated at a health unit.

Until a week ago, up to 1,000 cases were being reported in Cuba every day. The cases seen in Nicaragua are not of the hemorrhagic type but a kind of

conjunctivitis which has traditionally been found mainly among the peasantry, and is caused by poor hygienic conditions.

Dr Arguello pointed out that flies contribute to the dissemination of the disease.

He said in conclusion that a massive campaign is being planned to inform the population about prevention and control of the epidemiological phenomenon which could develop here.

On the other hand, this official announced that dengue is under control as a result of the steps which have been taken, as well as the mild winter. There is an average of 50 cases per month, including a small number of hemorrhagic cases. No deaths have occurred.

5157

CSO:5400/2008

NIGERIA

'UNIDENTIFIED EPIDEMIC' REPORTED

Deaths in Benue State

AB110945 Lagos Domestic Service in English 0600 GMT 11 Nov 86

[From the press review]

[Text] The STATESMAN expresses concern over the outbreak of an unidentified epidemic at Adum in Oju local government area of Benue State. According to the paper, about 100 people are said to have been killed by the strange disease which is fast spreading to other districts in the area. The STATESMAN calls on the federal government to wade into the situation and prevent the epidemic from spreading to other parts of the country. It also urges doctors to investigate the disease thoroughly and come up with a cure.

Medical Equipment, Drugs Sent

AB110945 Lagos Domestic Service in English 2100 GMT 11 Nov 86

[Text] The Benue State Government has taken delivery of 50,000 doses of yellow fever vaccines, drugs, and medical equipment from the federal government. The drugs are for the control of an unidentified epidemic which has killed more than 100 people at the Adum local government area of the state.

The commissioner of health, Dr (Stevens Okuya), said in Makurdi that the nature of the epidemic had not been determined. Samples from victims have been sent for analysis and Dr (Okuya) disclosed that a task force had been set up on the epidemic.

/12232
CSO: 5400/47

NIGERIA

BRIEFS

TRACOMA OUTBREAK REPORTED--An outbreak of trachoma, a deadly eye disease, has been reported in Bade Local Government area of Borno State. The disease, said to be spreading at an "alarming rate" in Bashua town especially, is said to be capable of blinding its victim within a short period. The general hospital in Gashua is reported to be incapable of coping with the situation and due to lack of drugs patients are being referred to chemists after prescription. Officials of the hospital have already appealed to the state government to come to their aid in order to bring the situation under control. Another outbreak of measles has also been reported in eleven villages in the local government. No casualty figures have been released, but a team of health officials have been drafted to the affected areas. Some of the villages affected are Buduwa, Muguram, Nasari, Jaba and Gauya, the SUNDAY NEW NIGERIAN learnt. [Text] [Kaduna SUNDAY NEW NIGERIAN in English 5 Oct 86 p 4] /9274

SCABIES OUTBREAK REPORTED IN BORNO--An outbreak of a skin disease at Biu Prison yard headquarters of the Local Government in Borno State is causing a threat to the health of inmates. The disease which medical experts identified as Scabies has infected more than half of the inmates out of a population of 600 prisoners. When the State Governor, Lt-Col Abdulkumini Aminu visited the prison yard last week to see the condition of the inmates, he directed officials to the Local Government to despatch medical experts to treat the inmates immediately and ensure that the situation was brought under control. The Governor assured the prisoners that the state government would provide them with blankets and other materials, while the Federal Government would be informed about their condition. [Excerpt] [Article by Inusa Shehu] [Kano THE TRIUMPH in English 23 Sep 86 p 16] /9274

CSO: 5400/38

PEOPLE'S REPUBLIC OF CHINA

FACTORS AFFECTING HUMAN INTERFERON- β SUPERINDUCTION

Beijing WEISHENGWUXUE TONGBAO [MICROBIOLOGY] in Chinese Vol 13 No 3, Jun 86
pp 117-120

[Article by Xiong Shaoyin [3574 4801 6892], Wu Benzhuan [0702 2609 0278] and
Xiao Chengzu [5618 2052 4371] of Institute of Epidemic Microbosis, Academy of
Military Medical Sciences, Beijing]

[Abstract] The use of the poly-I:C-cyclohexylimine-actinomycin D system in superinduction producing human interferon- β (HuIFN- β) is a conventional method; however, there are several factors affecting the end product. To explore the possibility of using Chinese-made poly-I:C in place of the imported product for the mass production of interferon, and to search for appropriate growth including conditions for higher interferon output, the authors conducted some comparative investigations on factors affecting superinduction. The authors reported the effects on superinduction temperature, calf serum, sugar, and priming (as shown in four tables). The interferon yields from the use of different-aged cells (in terms of days) are shown in a fifth table; a cell growth curve in a culture tube is shown in a figure. Another figure shows the cumulative activity of interferon production by SM₂ cells. The lone remaining table shows the effect of cell age (in terms of days) on superinduction.

The authors are grateful to the Institute of Biophysics of Chinese Academy of Sciences for their gift of poly-I:C, and to the Mother Country Medical Institute (of Heilongjiang Province) for their gift of experimental sugar.

REFERENCES

1. Xiao Chengzu, et al., ZHONGHUA WEISHENGWUXUE HE MIANYIXUE ZAZHI [CHINESE JOURNAL OF MICROBIOLOGY AND EPIDEMIOLOGY], 5 (3): pp 181, 1985.
2. Giard, D. J., et al., EXPERIMENTAL BIOLOGY AND MEDICINE, 170 (2): p 155, 1982.
3. Machida, H., et al., MICROBIOL. IMMUNOL., 24 (1): p 31, 1980.

4. Vanwezel, A. L., "TISSUE CULTURE METHODS AND APPLICATION," (Ed. Kruse, P. F.), Academic NY, p 372, 1973.
5. Hou Yunde [1775 0061 1795], GANRAOSU JIQI LINCHUANG YINGYONG [INTERFERON AND ITS CLINICAL APPLICATIONS], pp 174-175, Jiangsu Science and Technology Publishing House, 1981.
6. Machda, H., et al., JAPANESE J. MICROBIOL., 20 (2): p 71, 1976.
7. Wiranowska-Stewart, M., J. GEN VIROL., 37: p 221, 1977.

10,424/9599
CSO: 5400/4126

PEOPLE'S REPUBLIC OF CHINA

REVERSED CARBON AGGLUTINATION TEST USED IN EVALUATING LEPTOSPIRAL VACCINE MASS

Beijing WEISHENGWUXUE TONGBAO [MICROBIOLOGY] in Chinese Vol 13 No 3, Jun 86
pp 120-124

[Article by Bao Xinghao [7637 5887 6275], Liu Yan [0491 3601], and Li Yanjin [2621 1484 6855] of Sanitary and Epidemic Prevention Station, Zhejiang Province; Zhang Jinlin [1728 6930 7792] of Shanghai Institute of Biological Preparations; and Luo Haibo [5012 3189 3134] of Zhejiang Medical University]

[Abstract] In the improvement of OE vaccine, the authors prepared using the reversed carbon agglutination test (RCAT) as one objective standard of evaluating vaccine quality. In addition, the RCAT was used to determine and test batches of OE vaccines and leptospiral vaccines. Comparisons were made between the RCAT culture titer and the dark visual-field counting method. As a result, the authors discovered that the RCAT exhibited consistency to a certain extent; this paper reports the results. The authors report the following: 1) comparison of live bacterial count from dark visual field versus the RCAT titer of live bacterial culture; 2) comparisons of RCAT titer of OE vaccine prepared from different batches; 3) RCAT determination results for polyvalent ordinary vaccine; 4) relationship between OE vaccine protection of animals with different RCAT titers; and 5) results of carbon agglutination test of OE vaccines and ordinary vaccines within their efficacy period and past the effective period. One table lists data for each of the five areas mentioned above.

REFERENCES

1. Bao Xinghao, et al., WEISHENGWUXUEBAO [JOURNAL OF MICROBIOLOGY], 20 (3): p 316, 1980.
2. Bao Xinghao, et al., WEISHENGWUXUEBAO, 14 (1): p 112, 1974.
3. Yafle'yev RKh: ZhMEI, 9: p 93, 1963.
4. Bai Changluo [4101 1603 2867], et al., LIUXINGBINGXUE ZAZHI [JOURNAL OF EPIDEMIOLOGY], 3 (1): p 20, 1965.

5. Microbiology Teaching Research Section, Changchun Veterinary University, WEISHENGWUXUEBAO, 17 (2): p 158, 1977.
6. Bao Xinghao, et al., WEISHENGWUXUEBAO, 14 (1): p 120, 1974.
7. Xiangxi Miao-Tujia Autonomous Prefecture Sanitary and Epidemic Prevention Station, Hunan Province, LIUXINGBING FANGZHI YANJIU [RESEARCH ON PREVENTION AND TREATMENT OF EPIDEMIC DISEASES], 3: p 206, 1974.
8. Zhang Jinlin [1728 6930 7792], ZHONGHUA WEISHENGWUXUE HE MIANYIXUE ZAZHI [CHINA JOURNAL OF MICROBIOLOGY AND EPIDEMIOLOGY], 1 (3): p 174, 1981.

10,424/9599

CSO: 5400/4126

PEOPLE'S REPUBLIC OF CHINA

PEPTIDE MAPPING ANALYSIS OF ^{125}I -LABELED MEMBRANE PROTEINS OF SOME INFLUENZA VIRUSES ISOLATED IN CHINA

Beijing WEISHENGWUXUE TONGBAO [MICROBIOLOGY] in Chinese Vol 13 No 3, Jun 86
pp 124-128

[Article by Lin Qiao [2651 0829], Yan Jiaxin [0917 1367 2450], and Wang Maoliang [3769 2021 2733] of Institute of Virology, Hubei Provincial Medical Academy, Wuhan]

[Abstract] Membrane protein (MP) samples are relatively easy to prepare since there are a number of reports on the topic in China and other countries. Referring to the method of J. H. Elder, et al., the paper mainly reports on the comparative analysis of peptide mapping of several strains of influenza viruses MP isolated in China by using Chinese-made reagents and instruments. The authors concluded that the use of isotopes labeled with ^{125}I , ^{35}S and isotope tracers for peptide mapping analysis of proteins can yield clear results based on very small amounts of specimens, as well as excellent repeatability. As verified experimentally, ^{125}I labeled peptide mapping of influenza virus MP results in obviously different diagrams for virus variety A and B, as well as different diagrams among various subvarieties of variety A. Even in different strains of subvariety A₃, some slight but repeatable distinctions were found. This explains that the composition and sequence of amino acids exhibit certain changes even within a subvariety. Further study is needed on the biological and epidemiologic significance of these changes. Three figures show an electrophoresis diagram of an influenza virus in SDS-PAGE system, ^{125}I -labeled peptide mapping of MP of seven influenza viruses, and the schematic diagrams of the preceding mapping. The authors are grateful to Li Xingqiang [2621 5281 1730] of Wuhan University for taking part in some of the research; and colleagues Luo Junming [5012 6746 2494] and Feng Lingling [7458 3781 3781], as well as Liang Peijin [2733 1014 0513] and Zhang Li [1728 7787] of Laboratory of Electron Microscope and Supercentrifuging of the authors' medical academy for their enthusiastic support.

REFERENCES

1. Palese, P., and J. F. Young, SCIENCE, 215: p 1,468, 1982.
2. Oxford, J. S., et al., VIROLOGY, 74: p 394, 1976.

3. Lamb, R. A., and C. J. Lai, VIROLOGY, 112: p 746, 1981.
4. Zhang Guodi [1728 0948 1229], et al., SHENGWU HUAXUE YU SHENGWU WULI JINZHAN [PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS], 6: p 64, 1983.
5. Elder, J. H., et al., J. BIOL. CHEM., 252: p 6,510, 1977.
6. Yang Rongjian [2799 2837 7003], et al., WEISHENGWUXUE TONGBAO, 8: p 220, 1981.
7. Skehel, J. J., and G. C. Schild, VIROLOGY, 44: p 396, 1971.
8. Laemmli, U. K., NATURE, 227: p 680, 1970.
9. Dimmock, N. J., et al., VIROLOGY, 103: p 350, 1980.
10. Wittaker, R. G., and B. A. Moss, ANAL. BIOCHEM., 110: p 56, 1981.
11. Krohn, K. A., et al., BIOCHIM. BIOPHYS. ACTA, 490: p 497, 1977.
12. Winter, G., and S. Fields, NUCLEIC. ACIDS. RES., 8: p 1,965, 1980.
13. Briedis, D. J., et al., VIROLOGY, 116: p 581, 1982.
14. Brand, C. M., J. GEN. VIROL., 36: p 385, 1977.
15. Tian Muzhen [3944 1970 6297], et al., RENXU GONGHUAN JIBING ZAZHI [JOURNAL ON DISEASES COMMON TO MAN AND ANIMALS] (to be published).

10,424/9599
CSO: 5400/4126

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

AIDS PREVENTION TEAM--Beijing, 20 Oct (XINHUA)--The first AIDS prevention team has recently been set up in China, said an official from the Ministry of Public Health today. The team, consisting of 13 medical experts on virology, Epidemiology and the combination of Western and traditional Chinese medicine, was set up to follow the development of AIDS in the world and prevent the disease in China. Up to now, one foreign visitor died of AIDS in China and four Chinese were found carrying AIDS virus as a result of being injected with imported medicine. [Text] [Beijing XINHUA in English 0811 GMT 20 Oct 86] /9604

CSO: 5400/4108

SOUTH AFRICA

AIDS LIKELY TO DOUBLE IN 12 MONTHS

Cape Town THE ARGUS in English 28 Oct 86 p 3

[Text]

THE number of Aids cases in South Africa was expected to double in 12 months, said Dr Frank Spracklen, a member of the Aids Advisory Group in Cape Town.

Though the disease was not as rampant here as it was in other parts of the world, the virus was spreading faster than expected.

There were 42 reported cases of Aids in the country, with 24 deaths caused by the disease and one other death caused by an Aids-related virus.

Dr Spracklen said Aids in South Africa was following the American line rather than the African pattern.

Homosexuals, bisexuals

"Like America, there are no female Aids victims in South Africa. In other African states, up to 50 percent are female," he said.

"All South Africans who contract the virus are homosexuals or bisexuals.

"As soon as women contract the disease, it spreads faster. They pass it on to 'straight' men and babies in the womb," Dr Spracklen added.

Dr Spracklen said that though the disease was not spreading rapidly throughout South Africa, there was no room for complacency.

He said scientists throughout the country were engaged in research into the virus, with the basic accent on determining the clinical pattern that the disease is taking.

"Too promiscuous"

"We have the advantage, though, of learning from the experiences of scientists in other countries," Dr Spracklen said.

The reason for the low numbers of people contracting the disease in South Africa was because "people are wary of being too promiscuous and are taking precautions when they have intercourse with more than one person".

"The only advice that we can give the public is to refrain from having too many sex partners. They should ease up on promiscuity and settle for safe sex."

● The number of Aids victims worldwide has grown to 32 590, according to the World Health Organisation — an increase of more than 12 000 since last January and experts predict that the disease could reach epidemic proportions, claiming millions of lives before the end of the century.

● Doctors in Britain warned that the Aids virus had infected heterosexuals and said that the country was on the brink of a catastrophe.

In a peak-hour main item on Independent Television news on Sunday it was confirmed that 30 000 Britons were carrying the virus.

Doctors said that unless urgent steps were taken the scale of infection raging in the United States — where a million people are infected — would be Britain's problem tomorrow.

/9274
CSO: 5400/51

SOUTH AFRICA

MEASLES OUTBREAK FEARED IN OFS

Johannesburg THE NEW NATION in English 23 Oct-5 Nov 86 p 5

[Text]

THE Bloemfontein township of Mangaung is on the brink of a measles epidemic - a sad indictment of unequal South African health services.

Many people believe that the problems will be exacerbated when the tri-cameral ethnic fragmentation of health services come into full swing.

A spokesperson at the Batho Clinic revealed that studies have predicted a measles epidemic.

Reasons given by the spokesperson for the epidemic are -- inadequate staff to trace immunization defaulters; inadequate health service and the large number of people who oscillate between Bloemfontein and Bots-habelo with no fixed abode.

During the last few months there have also been a large influx of

people from the surrounding rural areas who are now resident as "illegal" tenants in Mangaung.

Many of these people don't attend municipal clinics for fear of exposure and victimization. Incidents have been reported where complications such as pneumonia and encephalitis have set in.

No deaths have been reported as yet. Attempts have been made to motivate the communities but statistics indicate a negative response.

Measles is a killer disease that affects children in the poorer socio-economic groups. It is a controllable disease but many children die in South Africa every year. It is feared that the situation may become worse than the epidemic which swept through the eastern Cape a few months ago.

/13046
CSO: 5400/43

TRINIDAD AND TOBAGO

HEALTH OFFICIALS SEEKING CAUSE OF 'RED EYE' EPIDEMIC

Port-of-Spain TRINIDAD GUARDIAN in English 7 Nov 86 p 1

[Text]

SPECIALISTS in the Ministry of Health are still trying to find the cause of the 'Red Eye' epidemic now sweeping the country.

According to Dr. Rosemary Paul, Principal Medical Officer (Epidemiology), so far the aetiological agent (the cause) responsible for the present increases in cases of Acute Haemorrhagic Conjunctivitis (AHC), popularly known as 'Red Eye,' has not been identified.

As a result, Dr. Paul has circularised physicians in the country requesting them to send eye swabs and acute and convalescent blood samples on a proportion of their patients suffering from 'Red Eye.' This would help, she says, in the task of identifying the virus.

Transport for the swabs and samples is available through the County Medical Officer of Health in each area, the circular said.

The disease is also under active investigation by the National Surveillance Unit of the Ministry of Health. In a note to medical practitioners, the NSU explains that 'Red Eye' is a viral infection "with sudden onset of pain or the sensation of a foreign body in the eye."

The condition progresses rapidly within one to two days to the full clinical picture of swollen eyelids, seromucous discharge, redness of the eyes and subconjunctival haemorrhage.

The disease resolves in one to two weeks and all persons are susceptible.

The search by specialists in the Ministry is apparently to discover which of

two viruses is the cause of the current outbreak in Trinidad and Tobago.

In dealing with the origins of the disease, Dr. Paul points to two viruses, Enterovirus 70 and a variant of the Coxsackie Virus A 24.

Enterovirus 70 appears to be the more prevalent, being responsible for "tens of millions of cases of AHC since 1969." The other virus is also known to cause a similar, but geographically more restricted, disease which has afflicted hundreds of thousands of persons.

Some epidemics of AHC in the Far East have involved both viruses circulating either sequentially or concurrently.

From Fingers

"Although the relative aetiology contributions of these two agents have not always been defined, it is clear that Enterovirus 70 has accounted for greater total morbidity."

Unlike most other Enterovirus infections, 'Red Eye' is probably transmitted primarily from fingers directly to the eye, rather than by respiratory secretions or faecal contamination.

"Contagion is, therefore, favoured by crowding and insanitary living conditions," she added.

"Re-use of water for bathing and sharing of towels were implicated as factors contributing to the spread of infection in one outbreak which was investigated in Guam."

It was pointed out that "nosocomial"

or in-hospital transmission has also been "repeatedly documented, particularly in ophthalmology units, where the infection appears to have been spread directly by physicians' fingers or by instruments."

On the question of prevention, Dr. Paul suggests "careful handwashing, the use of separate towels and sterilization of ophthalmologic instruments."

As far as therapy is concerned, the treatment of AHC is symptomatic. "Antimicrobial agents are not indicated unless there is bacterial super-infection," Dr. Paul says.

"There is no specific therapy that is known to prevent the spread of a viral conjunctivitis outbreak.

"It has been suggested that good personal hygiene, avoiding overcrowding and the prevention of cross-contamination among patients seen at clinics or doctors' offices may assist in controlling the epidemic," Dr. Paul concludes.

So far, the Guardian has not been able to determine the full extent of the epidemic. Statistics obtained from the Health Ministry this week show that up to October 11 this year a total of 699 cases has been reported from all sources.

However, it is understood that the number of cases not reported to the Surveillance Unit may be several times that number.

Business houses all over the country, however, have reported a serious loss of man-hours as a result of employees being struck down by the virus.

/9274
CSO: 5440/023

TURKEY

STATE OF MALARIA REPORTED

Ankara YANKI in Turkish 28 Jul-3 Aug 86 pp 40-41

[Text] One mosquito which is not killed in March becomes a colony of a billion mosquitoes by the end of the summer. And if one of these mosquitoes finds a neglected malaria carrier the disease can spread to 250 individuals within 15 days.

This dreadful situation has returned to Cukurova and Adana because of slackened anti-malaria efforts stemming from a mentality of "malaria was eradicated in Turkey 10 years ago." An intense campaign begun after the malaria epidemic of 1977--which affected 115,000 people--reduced this number to around 20,000. But the complacence resulting from this success slackened the pace of the work, and as a result 41,000 malaria cases were diagnosed last year in the Cukurova region alone. The precipitous rise in the number of malaria cases in this region--where 62 percent of all malaria cases in Turkey are encountered--resurrected the nightmare of the 1977 epidemic.

The malaria map encompasses the provinces of Adana, Icel and Hatay as well as the entire Southeastern Anatolia region. It is known that periodic epidemics of the disease, which is as ancient as the region's history, have caused thousands of deaths in ancient times in Cukurova. Historians report that during the Roman era, thousands of people lost their lives to malaria in Tarsus, which at that time had a population of 150,000, and that the epidemic was finally curbed by converting the swamps near the city to eucalyptus forests. It is said that while A. Cevdet Pasa was trying to settle nomadic Turkish tribes in Cukurova in 1865 fighting erupted because of malaria. Historical documents record that, after new brides, newborn infants and brave young men began dying of malaria, Turkmen tribal chiefs declared that they "cannot stay in these lowlands" and took up arms against Ottoman soldiers.

Latest Epidemics

During the republican period, a swamp drainage program reduced the malaria peril to relatively safe levels by the 1970's. However, the growth and revitalization of the Cukurova region and its environs made malaria a disease which would remain on Turkey's agenda for many years. At that time malaria, which was common in neighboring countries such as Syria and Iraq, was carried over to the region by both carriers of the parasite and mosquitoes which flew

the 5-kilometer distance. Moreover, the Southeast Anatolia and the Cukurova regions provided suitable conditions for malaria-carrying mosquitoes. Firstly, each year more than 300,000 migrant workers traveled from the Southeast to Cukurova. These workers lived in unhealthy conditions; they were sheltered in primitive tents pitched near ponds of water. This was the ideal setting for a malaria epidemic.

There were people, there were miles of canals and ponds and there were sufficient numbers of malaria-carrying mosquitoes around. These unhealthy conditions resulted in an epidemic in 1977, alarming the government. The number of malaria cases reached 115,500--90 percent of which were in the Southeast and Cukurova--and the government was forced to ask for assistance from the members of the World Health Organization.

Only European Country with Malaria

However, despite all efforts Turkey was seen as Europe's only country with malaria. Fortunately, the malaria in Turkey was not the toxic kind which causes death. Each year nearly 4.5 million people die of toxic malaria around the world. Of that number, 1.5 million are from India. While the risk of malaria exists in all Mediterranean countries because of climatic conditions, stringent examination of all travellers with a fever has become an effective protective tool in the hands of these countries. Despite Turkey's vulnerability to malaria both because of the country's domestic conditions and the location of the neighboring countries, the stringent measures taken during periods of epidemic were abandoned partly because of the lax attitude of public health officials.

The rising pattern in the incidence of malaria was discovered in 1984. That year, the number of malaria cases diagnosed reached 55,000; in 1985 that figure rose to 61,000. These figures were particularly alarming in Adana and Cukurova. In response, the Governor of Adana declared 1986 as the "year of campaign against malaria." A report submitted to the "anti-malaria campaign coordination council" set up by the Office of the Governor of Adana states that the number of mosquitoes may grow to a trillion during the March-September period and that during that period these mosquitoes can suck up to 6 million liters of blood, which is equivalent to the blood of 1 million adults. The treatment of a malaria patient for 14 days costs the government 100,000 Turkish lira. These measures are important not just for the Adana region, because the slightest movement of population in the country can cause the disease to spread to another region. Such a situation was experienced in Samsun in 1984.

That year, four malaria cases were diagnosed in the Terme county of Samsun. Studies showed that the disease was brought to Samsun by persons who had come from Adana to work as basketweavers and tortoise gatherers in Samsun. In Terme's climatic conditions, which are similar to those in Adana, mosquitoes spread the disease among the local population, and the number of malaria cases grew to 350 in a year.

The Ministry of Health and Social Assistance intensified its malaria watch in Southeast Anatolia and Adana after a growing number of cases were observed in 1984. Health-care squads were assigned to identify and treat malaria patients and to spray the region with chemicals. However, the success of these efforts will be seen by the number of malaria cases diagnosed next year.

Adana's Director of Health, Dr Nevzat Sahan, says that the success of the antimalaria campaign depends on the eradication of mosquito-breeding areas and that a coordinated effort is needed for that purpose.

Dr Sahan told YANKI:

"We set up laboratories for the anti-malaria campaign in nine health centers in the provincial capital of Adana and in various counties. We formed two teams to examine migrant agricultural workers. What we can do is to find the malaria patients and to treat them. Local governments must be more careful about the issue of combatting malaria."

What Needs to be Done

According to a report prepared by the Adana Health Directorate, each year the government budget allocates billions of Turkish lira for the importation of medications and equipment for combatting malaria. The report suggests the following steps to prevent the wasting of those billions:

"Cooperation among institutions is essential to stem the further growth of expenditures which do not go into investments and which do not produce lasting results. Every dam, every canal and every well built in tropical regions which is not used properly leads to the spread of malaria because of mosquitoes. Consequently, it is imperative to drain swamps, to ameliorate irrigation canals, to dispose of waste properly, to prevent environmental pollution and to treat stagnant bodies of water with chemicals."

Combatting mosquitoes, the chief carriers of malaria, is the most important element of the resolution of the problem. A British researcher noted that mosquitoes are very intelligent creatures and that "to combat mosquitoes one must think like mosquitoes."

In Turkey, three species of mosquitoes carry malaria. These insects, known as *sakoroi*, *spurpiktus* and *makulipendus* carry the blood they take from a malaria patient to another person. The malaria found in Turkey does not cause death because it is not the toxic type. However, by causing anemia and listlessness, it makes the body vulnerable to other diseases which may result in death. Moreover, fits of fever make the malaria patient unable to work. The malaria parasite causes damage to the liver and red blood cells and causes anemia. The disease, whose symptoms are fever, headaches and listlessness, later becomes evident with fits of fever every 24 to 48 hours. These fits, which are marked by alternating spells of chill and perspiration, eventually lead to a state of sleep. Advanced anemia may lead to the enlargement of the

liver and the spleen. A 14-day treatment is sufficient to cure the disease. However, the biggest complaint of health officials is that patients who are not required to stay in the hospital stop taking their medications before the prescribed 14-day treatment period. A mosquito sucking the blood of such a person may cause 250 new malaria cases in a single week.

9588
CSO: 5400/2409

UGANDA

BRIEFS

AIDS CAMPAIGN FUNDED--The government has earmarked \$750,000 to finance the campaign against AIDS or slim disease. This was disclosed by the minister of health, Dr Ruhakana Rugunda, when he was addressing members of the parish and the newly-elected Gombolola Resistance Committees of Nakawa Division at Naguru Community Center. He said another 360,000 shillings in local currency has been set aside to treat the disease. Dr Rugunda further disclosed that an order for the purchase of more machines to detect the disease on the victims has been placed. The minister, however, warned that the eradication of the disease will not depend on treatment alone, but mostly on its prevention. He therefore appealed to the general public to minimize sexual relationships. He also urged the public to take their children for immunization to prevent diseases which claim lives of 60,000 infants every year. [Excerpt] [Kampala Domestic Service in English 1700 GMT 26 Oct 86 EA] /12232

CSO: 5400/47

UNITED KINGDOM

ROUTINE VACCINATIONS POSE AIDS THREAT TO CHILDREN

London SUNDAY TELEGRAPH in English 19 Oct 86 p 3

[Article by Stephen Castle]

[Text]

THOUSANDS of children could run the risk of being infected with the deadly Aids virus through routine school vaccinations. According to Department of Health Officials...

They say the disease could be spread by inoculation "guns," known as jet injectors, used primarily for influenza vaccinations.

The department has sent out 50,000 copies of a circular warning medical officers and general practitioners not to use jet injectors. However it admits it has no idea how many of the devices, which are traditionally used in schools, are in use.

The circular, from the Chief Medical Officer Sir Donald Acheson, says the nozzle of the injectors could become contaminated with blood which may then been passed on to the next patient.

If one of those injected had contracted the disease, the risk

of it being spread would be high.

A spokesman for the department said: "There is no way of estimating how many jet injectors are in current use. They were widely used at one time and we do not know how many are still in circulation."

Each year around 1,500,000 people in Britain are vaccinated against influenza.

DECISION VINDICATED

Although health officials regard the risk of infection as "extremely low" Dr Leonard Roodyn, consultant at the vaccination service at the Hospital for Tropical Diseases in North London, said: "In the present state of medical knowledge I would certainly discourage the use of jet injectors.

"When the device was first introduced we decided against using it because of the risk that

blood could be transferred. After all these years, it seems that our decision has been vindicated."

Jet injectors have been used widely by companies carrying out mass immunisation programmes, although one of the largest producers of influenza vaccine, Duphar, stopped using them two years ago.

/9274
CSO: 5440/024

UNITED KINGDOM

HEPATITIS B AFFECTING MORE THAN 2,000 ANNUALLY

London THE DAILY TELEGRAPH in English 16 Oct 86 p 10

[Article by Dr K.C. Hutchin, Medical Consultant]

[Text]

HEPATITIS B, an increasingly common serious liver disease, affects more than 2,000 people in Britain annually, a doubling of cases between 1975 and 1984.

Britain has fallen behind other countries in the use of vaccines to protect people against serious diseases, according to Dr. Donald Jeffries, head of the Virology Department at St. Mary's Hospital, London.

Speaking at a conference on "Hepatitis B in the UK held in London, Dr Jefferies said many hospital staff were not vaccinated against hepatitis B. 10,000 members of high risk groups were admitted to British hospitals each year. The new vaccine against Hepatitis B was potent and totally safe, he said.

Dentists at risk

Not only are dentists and their staff now at risk from hepatitis B but also their other patients may be at risk from the infection if adequate precautions are not taken after the dentist has treated a potentially

infected patient. Dr Jeffries described the case of an American dentist who infected 70 of his patients because he did not take precautions.

Mr T. Dowell, a dentist, detailed the risk of infection run by dentists and their staff and made recommendations for their protection including vaccination, the wearing of gloves, masks and glasses, and the importance of comprehensive sterilisation

The conference chairman, Prof. A. J. Zuckerman of the London School of Hygiene and Tropical Medicine, said that Hepatitis B was a public health problem in all parts of the world. Chronic infection might lead to severe liver diseases, including cirrhosis and primary liver cancer.

Dr G. Alexander, senior lecturer to the liver unit of Kings College Hospital, London, said the risk groups from hepatitis B followed a similar pattern to those from Aids infection. He said that although male homosexuals were at greater risk than other groups the disease was exactly the same as in heterosexuals.

/7358

CSO: 5440/019

UNITED KINGDOM

NEW MENINGITIS DEATH; VILLAGE BECOMES TEST LAB

Gloucestershire Incidence

London THE DAILY TELEGRAPH in English 7 Oct 86 p 1

[Article by Paul Stokes]

[Text]

A THIRD child has died of meningitis in Gloucestershire as the Government announced yesterday that an entire town in the county is to be tested for the disease.

All 6,000 people in Stonehouse, one of the areas worst hit by the epidemic, will have swabs and blood tests taken at a cost of £50,000.

The latest victim was 18-month-old Tessa Duff. She died in Gloucestershire Royal Hospital on Friday and it was confirmed yesterday that she was suffering from the Meningococcal B strain of the disease, which attacks the brain.

She died only 29 hours after showing signs of the illness at her home at The Hawthorns, Lydney, in the Forest of Dean.

Her parents, Mr John Duff, a market trader, and his wife Gail, both 38, became worried when Teresa woke in the night in obvious discomfort. She was admitted to hospital in the morning.

The family home is ten miles from Stonehouse, which has 14 times the national average rate of meningitis cases. There have been 16 cases this year in Stroud health district which includes the town.

Rise in Deaths

London THE DAILY TELEGRAPH in English 8 Oct 86 p 21

[Text]

EVERY parent in Stonehouse, a small Cotswold town just down the road from Stroud, lives with the knowledge that meningitis is a baffling and devastating disease spreading through their community at 14 times the national rate.

Every parent worries that their child will be next, or that they or their children's school friends are harbouring the bacteria unwittingly.

Above all they ask, "Why us?" Yesterday, as the grief-stricken parents of a third child to die in the Gloucestershire area called for tougher measures by the health authorities, it became clear that Stonehouse is likely to become the national focus of attempts to solve the meningitis mystery.

Public health officials see meningitis and Aids as their two most threatening health problems. Already it is clear

that a national outbreak of the disease is well advanced, with 657 cases so far this year and 98 deaths. This is more than double the rate two years ago.

The last epidemic in Britain was in 1976, with 1,296 cases. The expected death rate is around 10 per cent, though doctors in the Gloucester area, stress that fast treatment has reduced deaths to below four per cent.

Usually meningitis outbreaks are expected to work their way through the community within three to four years which is one reason why health authorities did not consider launching a major research project earlier. However, there are no signs that the outbreak, which is now in its fourth year, is slowing down.

While the Stroud area is the worst affected, official figures

confirm that the disease appears to cluster in certain areas. Among the disease "blackspots" are Merseyside, Cornwall, Kent, Gloucester and West Yorkshire.

However it was publicity about Christopher Knight, a seven-year-old Stonehouse boy, who died of meningitis several months ago in the same week that two other local children fell ill with the disease, that led to a Government decision to get involved for the first time.

One direct result of all the local publicity and pressure is that Stonehouse seems set to become the nation's meningitis "laboratory". The Government has now announced that it is planning to take throat swabs and samples of blood and saliva from all 6,000 people living there for evidence of meningitis bacteria.

The hope is that the tests will disclose more about how infection spreads through a community. It is known that the bacteria are spread by droplet infection — through sneezing and kissing and so on — and that roughly one in 10 are carriers.

A problem, disclosed by previous swabs and tests on smaller groups of people, is that findings change from week to week. A carrier one week may be free from infection the next. But the tests should throw more light on which strains of meningococcal bacteria are most prevalent. There are several, and Norwegian research suggests that a strain called B15 may be responsible for giving rise to more prolonged outbreaks than in the past.

A second team of researchers from Edinburgh University will descend upon the beleaguered

Stonehouse inhabitants alongside the health service investigators.

The Edinburgh doctors want to find out who is most at risk. Studies from Iceland suggest that six out of 10 sufferers do not have blood cells in their saliva. They are known as "non-secretors", and it may be that their immune systems are less able to cope with initial attack by meningitis bacteria.

Although a vaccine is unlikely to be available to halt this 'epidemic', scientists at the Government's Porton Down biological research station are expected to be ready for human tests with a vaccine against the B15 strain next Spring.

There seems little doubt that meningitis will be forgotten. When Christopher Knight died, the coroner at his inquest noted that he would not have died in vain if his plight sparked a



nationwide campaign against meningitis. Yesterday, Steven Temlin, who founded the Meningitis Support Trust, jumped from the sky in a sponsored parachute jump — his first to ensure that the work of his local group will be taken up in other areas. From next week the Trust will operate on a national basis. "We want to use the Stroud area as an example of what is going on elsewhere."

/7358
CSO: 5440/019

YUGOSLAVIA

BRIEFS

RESULTS OF AIDS TESTING--The approximately 400 persons infected with AIDS out of somewhat more than 1,000 tested in our country represents a sword poised over our heads and a constant threat of further spreading. The carriers of the disease do not have to become sick but can infect others since it is not known what activates the disease. In this lies also the treachery of this disease..., says Dr Stevan Litvinjenko, head of the Epidemiology Service of the Federal Institute for Health Protection. Up to September of this year over 1,000 members of risk groups had been tested in our country. A total of 1,078 drug addicts, who because of some criminal offense were in jail and had been examined by the doctor, were tested. Most of them (699) had injected drugs and 35 percent (245) tested positive. Among hemophiliacs the possibility of AIDS infection has been reduced to a minimum by the subsequent sterilization of their medication. Of the 163 tested, 37 tested positive. Of the 216 homosexuals who for the most part volunteered to be tested, 23 were infected; while 6 of 23 prostitutes tested were infected. [Excerpts] [Belgrade BORDA in Serbo-Croatian 29 Oct 86 p 14] /9738

CSO: 5400/3002

ZIMBABWE

STD APPROACHING EPIDEMIC PROPORTIONS IN DARWENDALE

Harare THE HERALD in English 31 Oct 86 p 9

[Text]

THE incidence of sexually transmitted diseases is approaching epidemic proportions in the Darwendale and Trelawney areas of Norton district, the sister-in-charge at Kutama clinic, Mrs Lillian Chirambadare, has said.

Mrs Chirambadare said last Friday that STD was spreading at such an alarming rate because the people affected, invariably married women who were afraid of their husbands, did not attend clinics for treatment. Although her clinic treated between 40 and 50 patients a month, she felt a larger number did not seek medical treatment, thus making it difficult for medical staff to eradicate the diseases from the areas.

In a bid to warn the masses against the dangers of venereal

diseases, she suggested the launching of a publicity campaign in which the Government would publish bold posters, in both Chewa and Shona, so that workers could read for themselves about the dangers of neglecting to seek treatment when affected, such as impotence and sterility.

Mrs Chirambadare said free medical treatment for STD patients had been introduced at her clinic from the beginning of this month, although people whose incomes were above \$150 a month were required to pay \$2 for the whole course.

She stressed that the purpose of providing free medical treatment was to encourage STD patients to come forward for treatment, since the disease had claimed some lives due to lack of medical attention. — ZIS.

/9274
CSO: 5400/51

HONG KONG

BRIEFS

ANTIRABIES CAMPAIGN--A new bill introducing much higher penalties for owners who do not have their dogs vaccinated, is now in its final stage of drafting. Assistant Director of Agriculture and Fisheries Dr Thomas Yip told a Rotary Club of Kowloon Northwest dinner last night that, after endorsement by the Legislative Council, the new Rabies and Animal Control Bill would extend rabies prevention measures to all animals making them subject to strict import and quarantine controls. Under the new bill, which replaces the Dogs and Cats Ordinance, the vaccination of all dogs would still be compulsory and the requirement may be extended to other animals, he said. Since an outbreak of rabies in 1980, more than 160,000 dogs have been caught and destroyed and another 270,000 dogs and 3,000 cats inoculated against the disease. Dr Yip suggested that the disease's long incubation period, the very heavy traffic along the extended land border with China and the movement of the territory's fishing vessels in and out of China made Hongkong prone to outbreaks of rabies. [Text] [Hong Kong SOUTH CHINA MORNING POST in English 10 Oct 86 p 4] /9274

CSO: 5450/0035

INDIA

BRIEFS

RINDERPEST IN DELHI--Rinderpest, a deadly disease commonly found in milch animals, is feared to have assumed an epidemic form in the Capital. According to an unofficial estimate, at least 500 animals like cows and buffaloes afflicted by the disease have lost their lives and many more are suffering from it. Metropolitan councillor M R Arya has also sent a letter to Lt Governor H L Kapur to draw his attention towards the disease and to demand adequate compensation to the owners of the animals. Rinderpest was first detected in the Capital about five years ago when a large number of animals died in the Ghazipur Dairy farm. BJP had said in a report then that the cattle had died for lack of timely medical attention. While the Delhi Administration had neither confirmed nor denied the report about the disease, Mr Arya said the medicines and injections needed to curb the disease were not available in the market. The administration should set up special medical centres at every dairy complex in order to arrest the spread of the disease, Mr Arya added. [Text] [New Delhi PATRIOT in English 11 Oct 86 p 3] /13046

CSO: 5450/0032

NIGERIA

RINDERPEST PREVENTION CAMPAIGN, VACCINE PRODUCTION

Kaduna NEW NIGERIAN in English 24 Sep 86 p 16

[Article by Andrew Orolva]

[Text] About 10 million Naira had been spent by the Federal Government in buying rinderpest and contagious bovine pleuropneumonia vaccines and in supporting vaccine production at Vom in the past three years.

tures.

He said the Bauchi State Government had received inputs worth 500,000 Naira to date.

He said the effective co-ordinating efforts of the Federal Government, state veterinary officials, the immense cooperation from cattle rearers, traditional rulers and the local government implementation committees had helped to achieve the sharp reduction in number of rinderpest outbreak in the last few years.

He said in 1983, a total of 1,081 outbreaks of rinderpest were recorded in the federation with 3,422,835 sick and 500,158 dead cattles, while in 1984, 329 outbreaks were recorded with 53,908 sick and 7,659 dead cattles.

He said government effort to

control the disease yielded an appreciable result when last year only 39 outbreaks were recorded, adding that only two outbreaks had occurred this year, one of it was reported in Bauchi State and the other in Benue State.

He said about 11,350,812 cattle were immunized in 1983, 8,306,048 in 1984 and 8.5 million last year.

He called on state governments to maintain and intensify their interest in the welfare of the rural community in general and the cattle rearer in particular.

He also appealed to state governments to make specific budgetary allocations towards the eradication of animal diseases and assured that the Federal Livestock Department would continue to provide necessary co-ordination in the campaign.

The National Co-ordinator of Rinderpest Task Force, Kaduna, Dr. Solomon Oluokun, said in Bauchi while presenting rinderpest campaign inputs worth 50,000 Naira to the state's team that states also benefitted from the Federal Government expendi-

/9274
CSO: 5400/41

ST LUCIA

GOVERNMENT WORKING TO CONTROL AMBLYONA TICK SPREAD

Castries THE WEEKEND VOICE in English 11 Oct 86 p 9

[Excerpts]

THE Ministry of Agriculture has expressed concern over the spread of the Amblyona tick, and is appealing to the livestock farmers of the south for their usual cooperation in working with the Veterinary Services to combat the problem.

The Amblyona tick is a native to West Africa and first appeared in the Gros Islet area of St. Lucia in 1970, where the tick species, and severe cutaneous infection with **Dermatophilus Congolenses**, was observed to be associated with poor production, growth and increased mortality in cattle and small ruminants being reared in the area.

SURVEY

An epidemiological survey of the problem led to the view that the ticks may have been brought to this part of the island from neighbouring French territories, on small ruminants that may have been imported illegally on small craft plying between the islands. Since then the tick has remained in this area approximately 11sq. miles, until 1984, when the tick was observed on a few animals in the Savannes areas outside Vieux Fort, approximately 40 miles from the northern part of the island where it was first discovered.

Since it was first seen in the Savannes, Canelles area near Vieux Fort in 1984, the tick has spread to at least five other locations, one of which the lower Augier area, the main slaughtering area in the south. It should be noted here that the mode of spread of the tick is through movement of livestock.

The tick is important because of the severe mechanical danger it can inflict on animals. It is also the vector for at least two debilitating diseases of cattle horns and small ruminants. These diseases, **Dermatophilosis** and **heart water** have the potential to inflict significant losses in St. Lucia.

The termination of humid and hot conditions often results in spontaneous recovery, the micro-organism (*Dermatophilus congolensis*) remaining quiescent on the skin until the following wet season when the disease progresses once more.

Animals not seriously affected and maintained in good health may throw off the condition completely during the dry season.

The Ministry of Agriculture is aware of the adverse consequence if the tick establishes itself in the stray animal population in and around the Vieux Fort town area, and since that particular tick is a multi-host species, in the mongoose, the manicou, the wild rat and bird populations. The Ministry is therefore working to prevent the spread of the tick to these areas and to the Beausejour farm and Beausejour field communal pastures.

In order to achieve this objective the Veterinary services intends to locate the precise boundaries of the infected areas, identify animals and owners within the area, quarantine identified infected areas, and commence treatment of animals in these zones, establish buffer zones around the Beausejour livestock farm and Beausejour field areas. These zones by definition will be restricted to animals of all sorts and also birds.

The Veterinary services will by necessity be assuming a high profile in these areas and anticipates the usual enthusiastic co-operation of the livestock farmers and the general public.

Farmers in these areas should also contact their extension officers for further advice.

/9274
CSO: 5440/022

SOUTH AFRICA

LOCUST SPRAY FOUND IN KAROO SHEEP CARCASSES

Johannesburg THE STAR in English 27 Oct 86 p 9

[Text]

DURBAN — Karoo sheep slaughtered at the Cato Ridge abattoir near Durban have been found to be contaminated with BHC, a potent insecticide sprayed widely last summer in the battle against locusts.

Supermarkets and butcheries from Durban to Howick are supplied by the abattoir and any of them could be selling contaminated mutton and lamb.

Chemistry academics said last week that BHC, widely believed to cause cancer, was "not as poisonous as it's been made out" and that people should not panic.

Hygiene officials were alarmed in May to discover a consignment of mutton at the abattoir smelling of BHC, which has a faint but characteristic odour.

The chemical, like its cousins DDT and Dieldrin, lingers in the environment and in the bodies of humans and animals. It is banned in most countries.

The Deputy Minister of Agriculture, Mr G J Kotze, on Wednesday last week called an emergency meeting of senior department officials, who were forbidden to speak to the Press.

Agriculture officials in Maritzburg now plan to test meat samples daily, using a recently obtained gas chromatograph, a highly-sensitive device.

Previously meat was tested infrequently and comparatively crude methods were used.

The legal limit for BHC in red meat is two milligrams a kilogram, or two parts per million. The state agriculture laboratories in Natal were, until recently, unable to test for it reliably at that level.

It is understood that so far only one batch of carcasses has been condemned.

Professor Karl Pegel, an organic chemist at the University of Natal, said: "This is a very emotional subject. But if you gave me a contaminated carcass, I'd eat it.

NO REAL DANGER

"All your self-appointed experts have their own opinions.

"But in the small quantities we ingest from the environment, I think there is no real danger."

Technikon Natal senior research officer Dr Andrew Spark said BHC was "one of the least of the chlorinated evils."

Quoting scientific literature, he said Gamma BHC, the form of the poison believed to have been most widely used against the locusts, was about one twentieth as poisonous as Dieldrin. — Sapa.

SOUTH AFRICA

RABIES WARNING FOR NATAL

Johannesburg THE STAR (Metro) in English 29 Oct 86 p 1

[Text]

MARITZBURG — The Natal South Coast is sitting on a rabies bomb that could blow up at any moment, Dr Bill Posthumus, head of Veterinary Services in Natal, has warned.

There are now points of infection from Durban down to Port Shepstone and it is considered particularly worrying that two rabid strays were found near the holiday areas of Amanzimtoti and Illovo Beach within four days.

Dr Posthumus said he was to ask Durban State veterinarian Dr H R Thoroughgood to meet Amanzimtoti municipal officials to organise concerted preventive action.

Rabid dogs have also been put down recently at Umtentweni and Eston.

Natal has had seven cases this month, seven in September and nine in August.

/13046
CSO: 5400/43

UGANDA

BRIEFS

RINDERPEST QUARANTINE IN KUMI--The district of Kumi has been put under quarantine restrictions following an outbreak of rinderpest in Atapar subparish of Kapir sub-county. Movement of livestock into and out of the district is forthwith prohibited. All livestock markets in the district namely, Ngora, Kumi, Bukedea and Mukura livestock markets have with immediate effect been closed. Announcing this the Acting District Veterinary Officer Kumi, Dr Osire appealed to the people in the district to co-operate and observe the restrictions.
[Excerpt] [Kampala FINANCIAL TIMES in English 7 Oct 86 pp 1, 6] /9274

CSO: 5400/37

INDIA

BRIEFS

ROOT WILT DISEASE--Coimbatore, Oct. 17. The ICAR sponsored coconut research project of the Tamil Nadu Agricultural University was inaugurated at the agricultural research station in Aliyarnagar, 70 km from here by the Union Minister for Agriculture, Dr. G. S. Dhillon, today. Speaking on the occasion, Dr. Dhillon said to increase oilseeds production, a centre on oil palm was being established at the university's research station in Aduthurai. The ICAR had agreed to locate a centre for coordinated project on palms at the Aliyar research station. Expressing the Centre's concern over the fast spread of root wilt disease in the coconut plantations of Tamil Nadu, Dr. Dhillon urged the State Government to understand the gravity of the problem and take immediate steps to eradicate the disease. "Any delay on our part will be a disservice to the farmers," he said. Already about 1,600 palms have been affected, he added. [Excerpt] [Madras THE HINDU in English 18 Oct 86 p 13] /13046

CSO: 5450/0033

INDONESIA

BRIEFS

PLANT HOPPER ATTACKS RICE FIELDS--Jakarta, Nov 7 (ANTARA)--A recent intensive survey shows that ricefields in several places in Central Java, such as Pemalang, Purwokerto, Klaten and Yogyakarta, and in other seven provinces in the country, have been attacked by the brown planthopper (*L. Nilaparvata lugens*), Minister for National Development Planning Sumarlin told the press here Thursday. He said the pest is thus posing a serious danger to Indonesia's self-sufficiency in rice and the income of millions of farmers. Flanked by Agriculture Minister Achmad Affandi and Junior Minister for Boosting Food Production Wardoyo, Minister Sumarlin further stated that the planthoppers appeared to be of the new biotype which attacked the rice variety currently raised in most places, such as the Cisadane on Java island. He said the Cisadane variety, when it was first introduced in the 1980s, was quite resistant to the biotypes I and II brown planthopper, but has become virtually helpless against the new species. In the meantime, the findings of entomologists of the Hasanuddin University, the Bogor Institute of Agriculture, the Gajah Mada University, and experts of the FAO and the International Rice Research Institute showed that large-scale and continuous use of certain insecticides may indeed kill the brown planthopper, but not its offspring and eggs. Besides, in the course of the eradication of the tiny locusts with insecticides, the natural predators, such as spiders that normally feed on the small planthoppers, were also destroyed. The offspring and eggs that have not been destroyed by the insecticides later developed into a more voracious new biotype brown hopper, he added. [Text] [Jakarta ANTARA NEWS BULLETIN in English 7 Nov 86 pp A1, A2]
/8309

CSO: 5400/4314

NIGERIA

PESTS DESTROY FARMLANDS IN SOKOTO

Eight Local Areas Affected

Kaduna NEW NIGERIAN in English 23 Sep 86 p 1

[Article by Adebisi Adekunle]

[Excerpt]

UNIDENTIFIED moths and seven other pests have destroyed about 2,605 hectares of farmlands in eight local government areas of Sokoto State.

Commissioner for Agriculture, Alhaji Isa Mohammed Argungu, told newsmen yesterday that a message has been sent to the Federal Government to assist in controlling ravages of the pests.

He gave the names of the identified pests as quelea birds, rats, leaf rollers, aphids, smut, grasshoppers and beetles which have destroyed crops put at 6.32 million Naira.

The affected local government areas are Argungu, Yauri, Zuru, Gwadabawa, Bagudo, Silame, Gumi and Yabo.

Alhaji Isa said pest control teams drawn from the Federal Pest Control Unit based in Sokoto, Ministry of Agriculture and local government councils fighting the situation were forced to withdraw when it went beyond their control.

He added that government had spent over 500,000 Naira to control the pests before running out of drugs and equipment.

However, the commissioner said the teams were still in their respective areas monitoring the movements of the pests pending the arrival of federal assistance.

He said samples of the unidentified moths had been taken for identification in Lagos.

Invasion Spreading, Other Crops Affected

Kaduna NEW NIGERIAN in English 26 Sep 86 pp 1, 9

[Article by Adebisi Adekunle]

[Text]

GOVERNOR of Sokoto State, Colonel Ahmed Daku, has left Sokoto for Lagos to present a report on the menace of pests.

The invasion of farmlands

by grasshoppers and other pests in some parts of Sokoto State has now extended to Sokoto and its environs.

On Tuesday night, grasshoppers were seen all over public places and houses that were

provided with brightlights forcing inhabitants indoors or to switch off their lights in order to prevent grasshoppers from taking over their houses.

The governor left yesterday to seek urgent assistance from the federal authorities in curbing further damage.

The governor, who had toured three out of the eight local government areas affected by the pest invasion, was armed with species of the pests and a comprehensive report from the areas.

Governor Ahmed Daku had held a closed door meeting with members of the state executive council before his departure to Lagos.

The state Ministry of Agriculture had called an emergency meeting of all local government secretaries, Ministry of Agriculture officials, agronomists from the Sokoto Agricultural and Rural Development and the Federal Pest Control Unit to discuss the problem yesterday.

Officials of the Federal Pest Control Unit in Sokoto had urged parents to stop their children from consuming the grasshoppers.

The officials who warned that the grasshoppers might have fled from controlled areas and might still be carrying some of the toxic pesticides that could have long-term effect on children if consumed.

Meanwhile, unidentified moths which invaded farmlands in some parts of Sokoto State have now scared farmers away from their farms in Yabo Local Government area.

An unspecified number of farmers have been hospitalized

following bites they received from the moths.

Local government officials revealed this to Governor Daku who visited parts of the affected areas on Wednesday. They said the farmers resorted to the use of a local balm before going into their farms to harvest millet.

The farmers, according to the officials, have been receiving treatment in dispensaries in the area.

At Birnin-Kebbi, the Wazirin Gwandu, Alhaji Umaru Nassarawa, told the governor that menace of grasshoppers was now forcing the inhabitants of Birnin-Kebbi and environs to remain indoors in the night.

Alhaji Umaru appealed to the governor to treat the matter seriously.

Governor Daku had directed the Ministry of Agriculture and Natural Resources to compile within a week, a comprehensive report on the scope of destruction of the pests invasion in the state and mobilize all resources to destroy the pests.

The governor said the pests posed a serious threat to the expected bumper harvest and added that its control was beyond state and local governments, adding that the Federal Government must be involved to conquer "the invaders."

The Birnin-Kebbi local government officials had told the governor that apart from the affected millet farmlands, the pests were now threatening about 1,000 hectares of rice farms at Ambursa, Zauro and Birnin-Kebbi.

The officials also told the governor that about 240 farmlands had been sprayed with chemicals worth about 3,540 Naira.

The governor also visited Argungu.

/9274
CSO: 5400/39

NIGERIA

PESTS DESTROY FARMLANDS IN PARTS OF KANO

Kaduna NEW NIGERIAN in English 30 Sep 86 p 12

[Article by Sani Haruna]

[Text]

GRASSHOPPERS, rodents and worms have destroyed many farmlands in Hadejia, Kafin Hausa and Gumel local government areas of Kano State resulting in losses of several thousands of Naira.

The state Governor, Wing Commander Mohammed Umaru, spent the whole of the weekend inspecting the affected areas. He sympathised with the affected farmers and assured them of the government's prompt attention and assistance.

He emphasized the need for village and ward heads throughout the state to always report promptly to the higher authorities whenever there was such outbreak to enable government nip the situation in the bud.

The governor said such outbreak could have been avoided without much damage if extension workers of the Kano Agricultural and Rural Development Agency (KNARDA) had been doing their duties effectively by educating and enlightening

the farmers.

Wing Commander Umaru directed KNARDA to submit to the government within one week a comprehensive report on extent of damage done to crops in the affected areas with a view to assisting the farmers, adding that the Federal Government would formally be notified on the need to help the victims.

He said the government would consider constructing graded roads in the disaster areas of the state so that prompt assistance would reach the victims on good time.

He then directed the state Ministry of Works to start work on Kukaweshu-Gangara-Busuwa road in Gumel Local Government area.

Conducting the governor round the affected areas, Chairman of KNARDA, Alhaji Ibrahim Muhtar, said the agency had ordered the deployment of 90 per cent of its crop protection staff and equipment to the area to

combat the grasshoppers and worms.

Meanwhile, Commissioner for Agriculture, Alhaji Musa Shuaibu, is angry with district and ward heads in Hadejia and Gumel for not reporting the presence of pest which destroyed crops in that area early enough.

Alhaji Musa, who was in the areas affected by the pests to assess the situation noted that if the traditional rulers and agricultural extension officers in the areas had informed appropriate authorities at an early stage damage would have been lesser.

/9274
CSO: 5400/40

NIGERIA

BRIEFS

KANGAROO RATS INVADE KANO--Kangaroo-like rats believed to have penetrated into Nigeria from neighbouring Chad and Niger Republics have caused considerable damage to farm-crops in Hadejia and Kafin Hausa Local Government Areas of Kano State. The damage which could not immediately be estimated was according to agric experts also caused by locusts and worms. The military governor of Kano State Wing Commander Mohammed Umaru who made on-the-spot assessment of the damages at the weekend, expressed shock at the magnitude of the damage especially at a time when everybody in the state has high hopes for a bumper harvest. The Matamu and Lawandi hamlets near the Kano-Borno border which the government visited were also said to have suffered from lack of adequate rainfall. The governor urged the inhabitants to dispose of all the seedlings to be harvested this season and buy from Kano Agricultural Supply Company (KASCO) all seeds to be planted next season so as to ensure a pest-free planting and harvesting soon. Later, in an interview with reporters the governor said any assistance the government will give to the affected areas, will depend on the problems assessed. [Text] [By Abubakar Buhari] [Kano THE TRIUMPH in English 29 Sep 86 p 16] /9274

CSO: 5400/40

SOUTH AFRICA

'COMMANDOS' MOBILIZE TO COMBAT THREATENING LOCUST SWARMS

Teams Standing By

Cape Town THE WEEKEND ARGUS in English 18 Oct 86 p. 7

[Text]

PRETORIA. — Locust commandos are on stand-by to combat new swarms of these destructive insects which, following the recent spring rains, are expected to hatch over vast agricultural areas, mostly in the Cape.

Mr G J Kotze, deputy minister of Agricultural Economics and Water Affairs, warned this week though that farmers should report all hatchings immediately in order that the combatting teams could spray the creatures before they reached the flying stage.

More than 66-million hectares, mostly in the Cape, have been affected by brown locusts since the autumn of 1985 and the new swarms are expected

to hatch following the spring rains.

"Locust officials in all districts report that there are still farmers who notify cases of locusts either late or not at all," the Minister said.

"The secret of the proven commando system is precisely that farmers should report immediately the hatchings of locusts to the district locust officer so that he can despatch combatting teams to spray the swarm."

He reminded farmers that it is illegal to neglect to report the presence of locusts.

"Nobody likes to institute proceedings against users of land but it will unfortunately have to be done if there is not adequate responsible action in

this regard," he warned.

Although swarms had made an appearance earlier than expected in the Karoo and Northern Cape this spring, combatting units had "radically" decreased their expansion.

But bad weather over most parts of the country had caused a lull in the campaign. The rain meant new swarms may hatch and "The following 14 days could see one of the big plague periods."

Mr Kotze said he was generally satisfied with the way farmers and his department had been handling the outbreak. There had also been close co-operation with homeland authorities. — Sapa.

Units Fighting Locust Plague

Port Elizabeth WEEKEND POST in English 25 Oct 86 p. 3

[Text]

THIS weekend 160 mobile units are fighting locust outbreaks on farms in the Eastern Cape and Karoo.

The position is "serious but under control", according to Mr J L Vosloo, Director, Soil Protection, in the Department of Agriculture, Economics and Marketing.

Country-wide, 255 units are fighting hoppers in 57 magisterial districts cover-

ing more than 32 million hectares.

Apart from the Eastern Cape's Midlands and Karoo regions, other main areas affected are districts around Kimberley.

After recent rain and hot weather, hoppers have hatched on hundreds of farms in districts including Middelburg, Cradock, Aberdeen, Colesberg, Graaff-

Reinet, Hofmeyr, Nieuport and Somerset East.

In the Middelburg district alone, 12 mobile units are spraying.

It is vital to get to the hoppers before they become winged adults and fly out to ravage crops and veld.

Most farmers co-operate by reporting swarms without delay, said Mr Vosloo.

Last year's outbreak —

one of the worst in history — caused millions of rands' damage.

Farmers and their workers are the manpower in the fight against the locusts. The department provides insecticide and equipment.

But some farmers have their own equipment and are doing extremely well in destroying the hoppers promptly, said Mr Vosloo.

SOUTH AFRICA

LOCUSTS THREATEN 56 FARMING AREAS

Johannesburg THE CITIZEN in English 24 Oct 86 p 11

[Text] The brown locust plague was threatening agricultural production in 56 magisterial districts, but a heavy effort has been launched to combat the outbreak, the Department of Agricultural Economics and Water Affairs said yesterday.

In a statement yesterday, the Deputy Minister of the Department, Mr G. J. Kotze, said 239 mobile units were deployed to fight the plague which broke out in September.

The department is utilising stocks of BHC accumulated since 1975 to wipe out the infestation, he said.

The use of BHC for agricultural purposes was banned in 1981 because of the adverse effects it could have on agricultural products.

Mr Kotze, however, said the department had consulted the interdepartmental advisory committee on chemical remedies and had recourse to the 1947 (Act 36 of 1947) before deciding on using the chemical. It also had consultations with appropriate legal officers.

"The state is...making every effort in combating the plague," said Mr Kotze.

"Strategic stocks of BHC accumulated by the department since 1975 had to be used on a large scale during the initial phase of the brown locust plague owing to limited supplies of formulated insecticides such as Diazinon and Fenitrothion.

"The Department of Agricultural Economics and Marketing was fully aware of the ban placed in 1981 on the use of BHC for agricultural purposes.

"Consultations were, however, held with the registrar of the law relating to fertilisers, farm feeds, agricultural remedies and stock remedies, 1947 (Act 36 of 1947) and the interdepartmental advisory committee on chemical remedies before BHC was used as an insecticide against locusts," he said.

/9274
CSO: 5400/42

SOUTH AFRICA

LOCUST WAR ENTERS CRITICAL PHASE

Johannesburg THE STAR in English 30 Oct 86 p 5

[Text]

POR T ELIZABETH — More than 1 400 men are battling over 41 million hectares to prevent thousands of swarms of locusts, presently still in the hopper stage, from developing into a plague far worse than the outbreak that devastated large areas of the country earlier this year.

"The next six weeks are critical," says the man co-ordinating the war against the locusts, Mr J Vosloo of the Directorate of Soil Protection.

"Millions of eggs which began to hatch last month are beginning to reach the flyer stage.

"If we stay on top we may prevent another major outbreak. But if swarms of hoppers go unreported and unsprayed, we could be heading for another disaster."

Mr Vosloo said that 269 teams are busy spraying hopper swarms in 55 magisterial districts, mainly in the Cape and Free State.

IMPOSSIBLE

Mr Vosloo said it was both impossible and undesirable to kill every locust because, in normal numbers, they are part of the environment.

The aim of the teams is to wipe out enough locusts to prevent them reaching plague proportions.

The outbreak of the brown locusts earlier this year caused widespread crop losses, especially in the Eastern Cape. Mr Vosloo said the cost of fighting locusts in the last financial year was over R30 million.

Referring to the controversy over the use of the dangerous pesticide

Bhc to combat the swarms, Mr Vosloo said the last stocks of lindane, a concentrated form of Bhc, had recently been distributed and would shortly be used up.

After that, a pesticide named Fenitrothion will be used.

Mr Vosloo said "Fenitrothion is safe, but it is an organic phosphate and more dangerous to human beings than Bhc. Workers using it will be issued with protective clothing and goggles.

"Fenitrothion will kill a wide spectrum of insect life but since it will only be used on packed swarms of hoppers, the impact on the environment will be minimal.

"This spray is capable of killing birds and small animals, but only if huge amounts are administered."

/13046
CSO: 5400/43

UNITED KINGDOM

CATERPILLAR KILLER CALLED STEP TOWARD VIRAL INSECTICIDE

London THE DAILY TELEGRAPH in English 9 Oct 86 p 2

[Article by Roger Highfield, Technology Correspondent]

[Text]

A PEST-KILLING genetically-engineered virus which looks like toad-in-the-hole was released in an experimental field in Britain for the first time yesterday. It is being tested on caterpillars.

"It is a small step for science but it does represent the beginning of a new era for man", said Dr David Bishop, of the Natural Environmental Research Council's Institute of Virology in Oxford, who performed the experiment.

The virus, which infects caterpillars when eaten, "looks like a toad in the hole", according to Dr Bishop. Individual viruses sit like sausages in a protein batter, which is digested by the caterpillar, releasing the virus which multiplies and kills its host.

Once the caterpillar decomposes, the virus can spread. The experimental field used in the initial study is netted in so that predators cannot get in "and the caterpillars cannot walk away", said Dr Bishop.

Self-destruct aim

The virus takes a long time to kill the caterpillar. Scientists hope to introduce genetic material into the virus to make it produce a caterpillar-specific toxin to speed up the process.

Eventually the institute will develop engineered viruses that "self destruct" once a pest has been killed, according to Dr Bishop.

Yesterday's experiment is a stop towards developing viral insecticides that are more selective and safer than conventional chemical pesticides.

Such experiments have been the subject of controversy, notably in America, because of concern over the behaviour of the engineered organism. In the British experiment, caterpillars of the small mottled willow moth, a pest, were infected with the genetically engineered virus.

The results will be published next year and be used as a case study to develop regulations for the release of genetically engineered organisms.

Limited scope

Dr Bishop's team engineered a virus, a baculovirus, which can only infect a limited number of types of moth-caterpillar. It contained an easily identified label so that its spread can be measured.

The experiment was carried out after consultation with the Advisory Committee on Genetic Manipulation, Nature Conservancy Council, Ministry of Agriculture, Fisheries and Food, and the Department of the Environment.

/7358

CSO: 5440/019

- END -